



13th

UNDERGRADUATE MEDICAL RESEARCH CONFERENCE

11th – 12th March, 2020

ABSTRACT BOOK

"PROMOTING RESEARCH CULTURE"



“In the name of Allah, the Compassionate, the Merciful”

MESSAGE FROM THE DEAN

It is a great pleasure to write this message for the abstract book of 13th Undergraduate Medical Research Conference. The annual conference is now a regular research event organized by our students. It is very encouraging to see that this time we have about 160 research studies by undergraduate students from different Medical and Allied programs and institutions from all over the country that are being shared at this forum.

Research is not an additional activity but an integral component of our curricula offered at Peshawar Medical College, Peshawar Dental College and Ruffaidah Nursing College. Through the tireless efforts of our faculty, students and administration, we have been able to promote an understanding of basic concepts of research among our young students. We have also been able to sensitize them about the ethical values that underpin any good quality research.

The rise and fall of a nation depend upon their quest for knowledge. The history gives us strong evidence that Muslims ruled all the academic disciplines when they believed in doing recommended research as per Islamic teachings. They set great traditions in research. It was only when they lost the traditions in research that they lost their place too. I believe it is now high time not only to define our own priorities addressing the needs of our society but also to establish ethical principles and standards of research in the light of Islamic teachings and to define our own paradigm. The dedication and enthusiasm displayed by the students today, is a message of hope for all of us. If we regain our traditions, we will Insha'Allah get our place back.

I cordially welcome all the participants to this scholastic event and hope that they will maintain their keen interest in research and education in future too. Our students and teachers have tried their best to make it a memorable event for all and we hope that our worthy guests will enjoy and appreciate their efforts.

May Allah bless us all!

Prof. Najib ul Haq
Dean
Peshawar Medical College

MESSAGE FROM THE DIRECTOR UMR

All praise be to Allah! Who knows all that is obvious and all that is hidden!

Alhamdulillah, it is an honor for me to write this message for the abstract book of the 13th Undergraduate Medical Research Conference (UMR), 2020. This event and the abstract book have been possible only because of the invaluable efforts by our beloved students. We realize that it demands tremendous efforts on the part of our young students to manage medical studies and any co-curricular activities as big as organization of a national-level conference, not only at the same time but also successfully! It is also an evidence of their dedication to the noble cause of “research for the benefit of humanity”.

We, as an institution have always claimed that we want to establish and promote a “research culture” among our students. By the grace of Allah, the huge success of our conference this year and the unprecedented level of participation from all over the country makes me confident enough to say “The research culture that we have dreamt of once is shaping up as a visible reality now”

I am deeply indebted to our students’ conference team, our faculty and administration, all the young and energetic researchers who have made it here today, their supervisors and institutions, all - who made it possible for us to host this impactful event today. We look forward to still a better exhibition of performance from all of us as a unified research community in future Insha’Allah.

May Allah be with all of us!

Dr. Khadija N. Abdullah
Director, UMR

MESSAGE FROM THE PRESIDENT PRIME UMR SOCIETY

Praise be to Allah, the lord of creation, the benevolent benign and philanthropic monarch of the Day of Judgment, the One Who helps us and guided us in path.

It is a matter of immense pleasure for me to write for the abstract book of 13th Undergraduate Medical Research Conference (UMR) as president of the Prime UMR Society. First of all, I would like to thank every member of the UMR Society, our teachers and director UMR who put their efforts to make this conference successful.

I would like to convey a special message using this platform. Allah SWT says in his Holy book - Quran 'And we have certainly honored the children of Adam (AS)'. This honor is because of knowledge. The holy Quran inspires us to observe, experience, and investigate. Indeed, the holy Quran is the ultimate source of guidance, advice, healing and mercy for us.

As a doctor our job is to serve humanity therefore, we need to gain more knowledge through constant research and apply our knowledge for the benefits of humanity. It would be a matter of great success for us here in this world and in the hereafter.

Zia Ullah
President, Prime UMR Society
2019-2020

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**BASIC
AND
CLINICAL
SCIENCES**

A NOVEL FORMULATION OF CARICA PAPAYA LEAF EXTRACT FOR AN ACUTE VIRAL INFECTION (DENGUE FEVER).

Principal Investigator: **Samina Alam**

Co-Investigators: Huma Dilshad, Kashmala Fahim, Afia Haque, Bismah Nasir, Laraib Shamim, Rida Islam.

Jinnah University for Women Karachi, Pakistan.

Introduction :

Dengue contamination is a viral disease spread by mosquitoes with the quickest spreading in the world. It happens particularly in tropical and sub-tropical nations and Carica papaya leaf juice helps increasing the platelet count the leaves belongs to the family Caricaceae order Brassicales these leaves Recently, the utilization of elective medication and the consumption of plant materials have increased in numerous nations in the world, are commonly viewed as less poisonous and reactions than engineered ones.

Objectives :

1. The main purpose of our study is to aware health care professionals about the use of Carica papaya leaf extract formulation to treat a life-threatening disease dengue fever.

Methodology:

A quantity Carica papaya leaf were used for the preparation of water extract and given to the 20 dengue patients, 25 ml water concentrate of CP twice every day for five back to back days to treat this disease.

Results:

1. When the platelets were counted again after taking the Carica papaya leaf extract, was increased and dengue fever was stable which shows that Carica papaya leaf extracts are herbal way of treating dengue fever.

Conclusion:

2. By conducting the above trial, we were able to conclude that Carica papaya leaf extract can be used for the treatment of dengue fever which can increase the platelets count in patient suffering from dengue fever
3. and it help in treating the dengue fever without having any side effects and one of the easy and cheap way to treat the disease.

Key Words: Carica papaya, extract, dengue, platelets count, novel formulation

ALTERED POST EXERCISE CARDIOPULMONARY RESPONSE IN OBESE AND NON-OBESE YOUNG MEDICAL STUDENTS.

Principal Investigator: Irva Mubashar Cheema
Shalamar Medical and Dental College, Lahore.

Introduction:

The obesity may alter cardiorespiratory functions in a different manner as compared to non- obese individuals in the post exercise period. Understanding the mechanisms of alteration in cardiorespiratory responses after exercise in obese individuals is mandatory from preventive point of view.

Objectives :

1. To compare the post exercise cardiorespiratory response of obese with non- obese healthy adults.

Methodology:

A prospective cross-sectional study was conducted on 50 adults, 25 were obese and 25 were non obese. The study was conducted at Physiology Department, Shalamar Medical and Dental College during 2017. Cardiorespiratory parameters of all subjects were taken before and after walking on treadmill for 10 minutes at moderate speed. Student t test was applied.

Results:

1. Respiratory rate, Oxygen saturation and respiratory minute volume increased significantly after exercise, while increase in the tidal volume was not significant in obese as compared to non-obese subjects.
2. There was a significant increase in the heart rate in obese subjects after exercise.
3. However, changes in the PR, QT interval and QRS complex were not significant after exercise in either of the groups.

Conclusion:

1. Respiratory rate, Oxygen saturation, respiratory minute volume and heart increased significantly after exercise in obese subjects.

Key words: Obesity, Post exercise, cardiovascular parameters, Respiratory parameters.

ANTIBACTERIAL ACTIVITY OF SELECTED MEDICINAL PLANTS EXTRACTS AGAINST ANTIBIOTIC RESISTANT ESCHERICHIA COLI ISOLATES CAUSING URINARY TRACT INFECTIONS

Principal Investigator: Awais Qasim

*Co-Investigators: Junaid Khan, Zakir Ullah, Mansoor Ahmad, Palwasha Aman, Tahir Hussain
Abdul Wali Khan University Mardan, Mardan.*

Introduction :

Antibiotic resistance was first observed shortly after Alexander Fleming discovered penicillin in 1928, and since then this process is continued. Resistance to commonly used antibiotics is one of the most threatening issues to public health across the globe. There has been an increasing demand to search for novel antimicrobial agents to combat the increasing resistance. Medicinal plants are a rich source of many drugs especially antimicrobial drugs, and have been used from years to treat different types of diseases.

Objectives :

1. Evaluation of the antibacterial activity of certain plants extracts can offer feasible options in this regard.
2. Evaluation of antimicrobial activity of the selected plant extracts against clinical isolates and to compare resistance level of bacteria to commonly used antibiotics and medicinal plants.

Methodology:

Methanolic extract was taken and dried in water bath; dried extracts were dissolved in Dimethyl Sulfoxide (DMSO) and used against resistant isolates of *E. coli* in different concentration (25mg/mL, 50mg/mL, and 100mg/mL). The resulting inhibition zones were measured in millimeters (mm) using agar well diffusion method.

Results:

1. Methanolic Extracts of *Peganum harmala*, *Fogonia cretica*, *Ajuga bracteosa* and *Olea feroogenia* showed varying level of antibacterial activities against resistant *E. coli*.
2. The results of the study showed that the antibacterial effect of selected plant extracts increased with increase in concentration.

Conclusions :

1. So, it is recommended that antibacterial agents present in these plants should be isolated through advanced biochemical techniques such as HPLC, and be evaluated for potency.
2. These compounds may be evaluated as potential antimicrobial therapeutic agents against a wide range of human pathogens.

Key Words: Medicinal plants; UTIs; DMSO; *E. coli*; HPLC

ANTIBIOTIC RESISTANCE AND HERBAL CHEMOTHERAPEUTIC POTENTIAL

Principal Investigator: Rukhsar Javed

*Co-investigator: Syeda Tajalli Zahra,
Hamdard University, Karachi*

Introduction:

The antibiotic era started in 1940s and changed the profile of infectious diseases. Resistance can appear spontaneously because of random medication. However, western antibiotics are being left behind with its outmoded paradigm because drugs are becoming ineffective. Herbal medicine can fill this void. The development and spread of antibiotic resistance are a serious and growing phenomenon in contemporary medicine and has emerged as one of the pre-eminent public health concerns in 21st century. Since ancient time and even today plants are the humanity's primary medicine and possess healing power that pharmaceuticals never can.

Objectives:

1. The aim and objective of this research is to study and classify the herbal drugs with respect to their Temperament, mechanism of action, drug resistance, and anti-microbial spectrum.
2. No such evidence based herbal medicine classification has been done before so such approach will benefit the medical community in understanding easy the herbal antibiotics and its mechanism of action

Methodology:

Data was gathered from peer reviewed articles published in various scientific journals. A research was conducted in electronic databases including Midline, Science direct, Pub med and Google scholar. The keywords used in the search include herbal antibiotics, clinically important bacteria's, herbal mechanism of action, Alkaloids, herbal medicine. Only articles available in English were reviewed for research. References lists of selected articles were analyzed for relevant source which included various books (PDR, Pharma guide, Materia Medica, Qarabadin-e-Hamdard, Khazain-ul-Adwiya)

Results:

It was observed through literature review that herbs with the opposite temperament to the bacteria were effective in treatment. Also, there is no such evidence-based classification of herbal medicine has been done before so the idea of such approach will benefit the medical community and pharmaceutical industries for easy understanding of the herbal antibiotics.

Conclusion:

1. Outcome of this research work is compiled guide for Herbal physician beneficial in clinical practices for treating and preventing the infectious diseases.
2. The research has provided an overview on the benefits of herbal Medicine against antibiotic resistance bacteria this would help in the discovery of treatment that would decrease the burden of infectious disease due to the drug resistance bacteria.

Keywords: Infectious diseases, Antibiotic resistance, Herbal chemotherapeutic potential.

ANTIBIOTIC SUSCEPTIBILITY TO UROPATHOGENS OF URINARY TRACT INFECTIONS (UTIS) AT MUHAMMAD MEDICAL COLLEGE.

Principal Investigator: Humair Javaid,

Co-Investigator: Hassam Shaikh

Muhammad Medical College, Mirpur Khas, Sindh.

Introduction:

The widespread use of antibiotics against uropathogens has promoted the appearance of antibiotic resistant species in UTI patients.

Objective:

1. To determine antibiotic susceptibility to Uropathogens of urinary tract infections (UTIs) at MMCH, Mirpurkhas.

Methodology:

Retrospective study was conducted to calculate the prevalence of Uropathogens and the current status of anti-microbial susceptibility between January 2019 - December 2019 at Muhammad Medical College and Hospital (MMCH) Mirpurkhas. Clean mid-stream urine samples were collected from all suspected UTI patients. Urine samples were cultured and subsequent uropathogens were processed for isolation. Isolated pure cultures were grown on Biolog Universal Growth Agar and identified using the GEN III OmniLog® Plus Identification System Protocols. Antibiotic susceptibility was assessed.

Results:

1. The overall prevalence of uropathogens in this area was 33%.
2. Out of a total of 169 patients, 56 were affected.
3. 26 patients were male whereas 30 were female, respectively.
4. Ages ranged between newborn to 90+ years with a mean of 30 years.
5. In our study, the most common uropathogen was Escherichia Coli (30%), followed by Klebsiella species (3%).
6. Amikacin was the most effective drug against isolated uropathogen followed by Gentamicin and Fosfomycin.
7. In contrast, Clindamycin, Pipemidic Acid, and Cephalexin were antibiotics for which most isolates developed resistance.

Conclusion:

1. Urinary tract infections were most common in the study area and all isolated uropathogens showed resistance to the most commonly used antibiotics.

Key Words: Antibiotic, Urinary Tract Infection, E Coli

ANTIMICROBIAL ACTIVITY OF VIT C FROM THE LEAVES AND SEEDS EXTRACT OF ALLIUM URSINUM (WILD GARLIC) FOR THE TREATMENT OF UTI.

Principal Investigator: Hira Latif.

Jinnah University for Women, Karachi.

Introduction :

For thousands of years herbal products are playing an important role for treating human ailments. According to WHO 80 % of world's population relies on natural medicines for curing and preventing diseases. The use of herbal antimicrobial /antibiotic product consists of medicinal plants become more popular due to antibiotic resistance of allopathic medicines.

Urinary tract infection is the bacterial invasion of urinary tract system such as gram negative and gram-positive bacteria i.e. enterococcus, staphylococcus, E. coli. About 150 million people suffer from UTI each year globally. It is most common in female than male due to shorter distance of urethra. Allium ursinum L is a wild plant belonging to the Amaryllidaceae family have antimicrobial property.

Objective :

1. The aim of study is to treat UTI by using leaves and seeds extract of Allium ursinum which is highly rich in vit C and have antimicrobial activity.

Methodology:

The method is used for Allium ursinum's leaves and seeds extract are decoction, infusion, tincture, juice, syrup.

Results:

1. Vit C present in leaves (750mg %) and in seed (100mg %).
2. Vit C have ability to inhibit in bacterial growth and may find potential use in topical as well as enteral antimicrobial applications.
3. So wild garlic leaves and seeds extract are used to inhibit growth of bacteria and treat UTI complications.

Conclusion:

1. Our study suggests that high intake of ascorbic acid which is richly present in wild garlic leaves and seeds tends to increase the acidity of urine which is not well tolerated by bacteria responsible for UTI.
2. There is need to further explore possibly of using vit C safely as an effective antimicrobial agent.

Keywords: Wild garlic, Antimicrobial, Uropathogenic, Urinary tract infection, Ascorbic acid, Antioxidant, Allicin, Bear's garlic.

ANTINOCICEPTIVE ACTIVITY OF ETHYL ACETATE EXTRACT OF MURRAYA KOENIGII LEAVES IN ACETIC ACID INDUCED WRITHING IN NMRI MICE

Principal Investigator : Toosa Sheikh

Co-Investigators: Hiba Sohail, Fizza Arif
Hamdard University, Karachi

Introduction :

Murraya (curry leaves) is a very common spice in the Indo-Pak subcontinent. It is used for medicinal purposes especially in the treatment of diabetes. It is very rich in chemical constituents like mahanine, mahanibine, bismahanine and murrayanine.

Objectives :

1. To evaluate the antinociceptive activity of ethyl acetate extract of *Murraya koenigii* (EAMK) leaves.

Methodology:

Experimental study design was used at the pharmacology lab of Hamdard University, with one day duration excluding acclimatization period. Animals by the help of simple random sampling were divided into four treatment groups namely; NaCl, Diclofenac Sodium (10mg/kg) and two test drug groups of 50mg/kg and 100mg/kg of EAMK. Anti-nociceptive activity was observed for 30 minutes by injecting 0.6% acetic acid (IP, 10ml/kg), after one hour of dosing.

Results:

1. One-way ANOVA showed significant difference of the groups in latency to start the writhing ($F=21.2$, (3, 8) $p < 0.001$) and number of twitches ($F=23.24$ (3, 8) $p < 0.001$). On further analysis EAMK 100mg/kg dose showed very promising results by increase in latent period as compared to other groups including Diclofenac ($p < 0.001$) and by decreasing no. of twitches ($p < 0.001$).
2. Additionally, behavioral activity noted in open field showed rise in rearing behavior by 100mg/kg of EAMK. Dose ($F=267.86$ (3, 8) ($p < 0.001$) showing relaxed nature, despite pain induction ($p < 0.05$). However, mobility was not found higher than diclofenac group showing further amelioration in the pain symptoms.

Conclusion:

1. The response of drugs was EAMK 100mg/kg > Diclofenac > EAMK 50mg/kg as compared to saline. Further detailed analysis on receptor activity is suggested as a future plan.

Keywords: *Murraya Koenigii*, Acetic Acid Induce Writhing, Antinociceptive Activity

CASE REPORT: ASPERGILLUS FLAVUS AS A SURPRISE SOL IN IMMUNOCOMPETENT PAEDIATRIC PATIENT

Principal Investigator: Mir Ibrahim Sajid

*Co-Investigators: Samira Balouch, Noor Malik, Ehsan Bari
Agha Khan University*

Introduction :

Aspergillus species although ubiquitous are more frequently observed in immuno-compromised individuals upon inhalation of conidia. Most usual complications are lung and cutaneous infections. Most of the fungal infections which happen in humans are opportunistic, mostly due to immunocompromised host. However, some fungal infections can happen, even in normal hosts.

Objectives :

1. To report a surprise space occupying Lesion in an immunocompromised pediatric patient.

Methodology:

This is a case report. It describes the clinical presentation, investigations and diagnosis of an immunocompromised pediatric patient with unexpected diagnosis.

Results:

We present the case of a 14-year-old boy who presented to the emergency department of Aga Khan University Hospital, Karachi with complains of right sided weakness of the body. This was a rapid-onset condition which was associated with gait disturbances and multiple episodes of vomiting. MRI head was performed which showed encapsulated Space Occupying Lesion in the left frontal lobe with surrounding edema. The patient was planned for craniotomy to remove intracerebral abscess. Histopathology report revealed presence of chronic granulomatous inflammation with necrosis and numerous septate hyphae. A fungus culture was run which confirmed presence of heavy colonies of Aspergillus Flavus.

Conclusion:

1. Fungal infections of the central nervous system are almost always a clinical surprise, have subtle presentation and mistaken often as meningitis, brain abscess or tumor.
2. Any suspected lesion once removed should be sent for biopsy to rule out the presence of any fungal infection.

Key words:Immunocompetent patient, frontal lobe mass, Aspergillus Flavus infection

ASSESSMENT OF COLOUR VISION AMONG WORKERS EXPOSED TO ORGANIC SOLVENTS.

Principal Investigator: Hina Zainab.

Co-Investigators: Aeman Yaseena and Azka Qamar.

Students of School of Optometry, The University of Faisalabad, Faisalabad.

Introduction:

Organic solvents are volatile carbon-based chemicals. Chronic occupational exposure to organic solvents affects color vision.

Objectives:

1. The purpose was to assess color vision among subjects with chronic exposure to organic solvents
2. and to compare the color vision deficiencies among subjects exposed to organic solvents.

Methodology:

A descriptive cross-sectional study was conducted from November 2019 to May 2020. Sampling technique was purposive sampling. Total study sample was 80 subjects exposed to organic solvents (toluene, styrene, perchloroethylene and n-hexane). The subjects included in this study were house painters, furniture polishers and workers in textile dyeing and printing industry including male workers of age 20-35 years with the duration of exposure with organic solvents from 1-5 years. Subjects having visual acuity ranging from 6/6 to 6/9 were included. After taking detailed history, visual acuity and color vision were assessed using Illiterate E chart and Farnsworth D-15 test respectively. Subjects with hereditary color vision loss were excluded. Analytical test chi-square was applied by SPSS version 20.0 for statistical analysis.

Results:

1. A significant association was observed between chronic exposure of organic solvents and color vision impairment within level of significance of ($p < 0.05$).
2. Subjects exposed to organic solvents had significantly higher incidence of tritanopia (Blue-yellow deficiency) than deuteranopia (Red-green deficiency).
3. The chronic exposure of organic solvents leads to significant deficiency in color vision.

Conclusion:

1. The results of this study concluded that occupational exposure of organic solvents induced acquired color vision impairment.
2. Frequency of blue-yellow deficiency was higher than red-green deficiency.
3. This study provides a better understanding of the association between color vision and organic solvents.
4. Color vision must be evaluated and will become an early assessment and screening tool for optometrist in routine examination against occupational hazards and give awareness and health education to subjects exposed to organic solvents.

Keywords: Organic solvents, Color vision, Dyschromatopsia, Occupational Exposure, occupational hazards.

ASSESSMENT OF GRADES OF BSV IN HETEROPHORIA

Principal Investigator: **Wania Anwar**

Co-Investigators: HanfaAneebSaqib, Tehreem Gull

School of Optometry, The University of Faisalabad, Faisalabad.

Introduction :

The purpose of this study was to assess the grades of BSV in heterophorias and also determine the relationship between different degrees of heterophoria and grades of BSV.

Objectives :

1. To access the grades of BSV in heterophorias.
2. To compare the grades of BSV in different degrees of heterophoria.

Methodology:

A descriptive cross-sectional study was conducted from November 2019 to April 2020 at Medina Teaching Hospital and Allied Hospital Faisalabad. 100 subjects with visual acuity 6/6 under age group of 8-18 both males and females were included in this study. A convenient sampling technique was imposed to collect sample data. An informed consent and detailed history were taken from all patients. Phorias were examined by placing Maddox rod in the front of one eye at a distance of 6m and for near at 40cm and same with alternate eye. Torch light was given as a target. Patient was asked to draw the image of the line and spot. Prisms were placed in front of eyes to measure the degrees of phoria and the patient was asked to align the spot and line image. After this, grades of BSV were accessed by using synoptophore and stereopsis was tested by using titmus fly test at working distance. Data was analyzed by applying descriptive statistics and one-way anova. SPSS version 20 was used for statistical analysis.

Results:

1. The result of this study shows the change in grades of BSV in heterophoria patients with significance of ($P < 0.05$).
2. First two grades were not affected by heterophoria but Stereopsis decreased with the severity of heterophoria.
3. The severe the degree of heterophoria there is a significant reduction in stereopsis.

Conclusion:

1. There was a significant relation between heterophorias and grades of BSV.
2. The result concluded that stereopsis got direct relation with heterophorias while there is no change in first two grades of BSV.
3. The stereopsis was found more reduced in moderate to severe degrees of heterophoria.

Keywords: BSV, Grades, Heterophoria, Phoria.

ASSESSMENT OF VA AND STEREOPSIS IN AMBLYOPES USING DICHOPTIC GAME V/S PATCHING

Principal Investigator: Fatima Zafar

Co-Investigators: Mahnoor Shoukat, Hareem Chishti, Arshia Shakeel
Students of Optometry, The University of Faisalabad

Introduction :

This study aims to determine the difference between visual acuity and stereo acuity using binocular training games and monocular patching therapy in different types of amblyopia (anisometropic and strabismic).

Objectives :

1. To assess visual acuity and stereo acuity in amblyopic subjects before and after using dichoptic training game and monocular patching therapy.
2. To compare Stereo acuity and visual acuity in amblyopic subjects before and after using dichoptic training game and monocular patching therapy.

Methodology:

A cross-sectional study was conducted from November 2019 to April 2020 at Ophthalmology Department Madinah teaching hospital and Allied hospital Faisalabad. 30 subjects of both sexes, amblyopia aged (7-18 years); having anisometropic and strabismic amblyopia were included in this study. Non- probability purposive sampling technique was used to collect sample data. Visual acuity was tested by LogMAR and stereopsis was tested by titmus fly test both with and without glasses. Anaglyph glasses and lazy eye blocks game were used for dichoptic treatment. A detailed consent and history of all patients were taken. 15 of the subjects were given home-based dichoptic game using anaglyph glasses to play for two hours per day for 4 weeks, and the other 15 subjects were given monocular part-time patching therapy for 4 hours for 4 weeks. A follow up of four weeks was given. After four weeks, visual acuity and stereopsis were measured again of both groups. Data was analyzed by using Paired samples T-test and independent sampling t-test, SPSS 20 version as a tool for data analysis.

Results:

1. Visual acuity and stereopsis were found significantly improved using binocular dichoptic game therapy.
2. When paired sample t-test was applied the result was found to be significant ($p < 0.05$). It shows that visual acuity was more improved than stereopsis after the game therapy.
3. Independent sampling t-test showed the result of binocular dichoptic game was more significant than monocular patching.

Conclusion:

1. There was more significant improvement in visual acuity than stereopsis before and after dichoptic treatment, whereas monocular patching therapy showed less significant change in visual acuity or stereopsis in the given period of time.
2. The study concluded that dichoptic training shows good compliance in patients as compared to patching therapy and it yields good prognosis.

Keywords: Amblyopia, Dichoptic, Stereopsis, Visual acuity.

ASSESSMENT OF VISUAL FUNCTIONS IN PEOPLE ADMITTED FOR DENGUE FEVER IN MEDICAL DEPARTMENT, HMC PESHAWAR

Principal Investigator: Asadullah

Co-Investigators: Sami-Ud-Din

Pakistan Institute of Community Ophthalmology Peshawar

Introduction :

Since 2017, dengue has been endemic in Pakistan especially KP and district Peshawar. The vast majority of country's inhabitants don't know preventive measures for mosquitos. Lack of education has not only increased other public health problems but also have such ocular conditions which are not only going to make them deprive of their normal living but also increasing burden on society.

Objectives :

1. To assess visual functions in people diagnosed with dengue fever
2. To compare visual functions with age, platelets count and duration of dengue

Methodology:

A Cross Sectional was conducted in HMC Peshawar from September 2017 – February 2018. Sampling used was Convenience Sampling. Data collection tools included Performa, Record file, LogMAR Chart, Pelli-Robson Chart, Amsler Grid, and Farnsworth D-15. The analytical methods used was SPSS (Descriptive Frequencies, Chi-Square and T-test)

Results:

1. In 218 eyes (109 Subjects) 69 were males and 40 females. Mean LogMAR VA was 0.23. Through confrontation 193 were normal while 25 eyes have some defects. Amsler grid shows 182 normal and 36 abnormal.
2. 19 eyes were having contrast sensitivity in range of 0.00-0.45 log units, 79 having >0.45-1.05, 101 having >1.05-1.65 and 19 eyes having CS in range of >1.65-2.25 log units.
3. For color vision, 1 subject have Protan defect, 2 Deutan, 20 Tritan, and 12 subjects' pattern didn't match any category. In cross tabs amongst age-visual functions, VA, CS and color vision were highly significant (p-value 0.000).
4. Amongst platelets count-visual functions, VA and CS were having significant values (p-values 0.002 and 0.001 respectively). No significance shown amongst duration and visual functions.

Conclusion:

1. Majority of respondents have impaired VA and CS. VF and color vision were defective up to some extent.
2. There were highly significant association between age and all visual functions except for Amsler grid results.
3. Also, strong association between platelets count and some of visual functions were seen. There was no such association of dengue fever duration with the visual functions.

Key words: Dengue, Visual Acuity, Visual Fields, Contrast Sensitivity, Color Vision

ASSOCIATION BETWEEN LEVELS OF OESTROGEN AND LEVELS OF DRY EYE

Principal Investigator: Arooma Asghar

Co-Investigators: Rimsha Saman Butt and Mehroz Shahid

School of Optometry, the University of Faisalabad

Introduction :

Women are more prone to Dry Eye compared to men because of variation in sex hormones. Sex hormone influences on the immune system suggests that Estrogen may modulate a cascade of inflammatory events, which underlie dry eye.

Objectives :

1. To find the Association between Levels of Estrogen and Levels of Dry Eye.
2. To compare the Levels of Estrogen and Levels of Dry Eye among menstruating and post-menopausal women.

Methodology:

A Prospective, Longitudinal study was conducted at Research Lab of The University of Faisalabad from November 2019 to Jan 2020. Sample of 60 patients was selected by Non-Probability Convenient Sampling Technique. 30 menstruating women aged 18 to 25 years (Group-1) and 30 women with menopause aged 50 to 55 years (Group-2) were included in this study. Correlation and Repeated measure ANOVA on Group-1 and Correlation on Group-2 was applied in this study using SPSS 20 version. All patients were undergone through Schirmer test-1 and TBUT and Serum Estrogen test. In Group-1 we took 3 blood samples on 2nd, 8th and 14th day of menstrual cycle and in Group-2 only one blood sample was taken for Serum Estrogen level measurement. On each day we were also assessing the tear film.

Results:

There is significant association between Levels of Estrogen and Levels of Dry Eye ($F=0.79$, $P=0.001$) In Group-1 (menstruating females) Dry Eye was more prominent at first phase of menses as compares to follicular phase and pre-ovulatory phase. With, increase in age Dry Eye condition worsens and it is more prominent in Group-2 (post-menopausal females) as compares to Group-1.

Conclusion:

Levels of Dry Eye Associates with Levels of Estrogen and with increase in age this condition worsens. These cyclic variations in Estrogen should be considered while treating patient with Dry Eye and recommending contact lens use during menstruation and in post-menopausal women.

Key words: Dry Eye, estrogen, Menstrual cycle, menopause.

AWARENESS AND ATTITUDE TOWARDS USING DENTAL MAGNIFICATION AMONG DENTAL PRACTITIONERS AT A TERTIARY CARE HOSPITAL

Principal investigator: **Ruqqaiya Altaf**

Co-Investigators: Zainab Hotay, Sayeda Saher Furrukh, Shamila Shabih, Shahid Islam
Fatima Jinnah Dental Hospital

Introduction :

Dental work demands excellent hand-eye coordination with clinical and conceptual understanding which requires a clear magnified field of vision. Magnification devices include dental loupes and Dental operating microscope (DOMS) which help in good quality dental work and in maintaining the perfect posture.

Objectives:

1. To determine awareness and knowledge of dental loupes and the extent of its use among dental practitioners at Fatima Jinnah Dental Hospital.

Methodology:

A questionnaire-based study was conducted at Fatima Jinnah Dental College and Hospital where all the final year students, house officers, post-graduate residents and heads of the departments were asked to fill the questionnaire (n=242). The study duration was 3 months. Data were analyzed using IBM SPSS version 23.

Results:

1. This study shows that 88.5% of practitioners had knowledge of dental loupes but only 42.2% own it.
2. 43.9% of users considered 2.5x magnification in which light mounted through the lens was a preferred choice. Endodontics and crown and bridge were selected as the main potential areas of clinical use.
3. 69.7% of the participants considered visual comfort as the main advantage of using dental loupes. Nearly all the respondents (96.3%) agreed that magnification enhances the accuracy and quality of work.
4. 27.3% of practitioners considered price as an important factor. Fortunately, 90.6% will consider dental loupes in their future dental practice.

Conclusion:

1. The use of dental loupes is considered important by the respondents as it provides visual magnification, enhanced quality of work and ergonomic benefits.

Keywords: Dental magnification, endodontics, operating microscope, posture, visual acuity, visual aid

BANANA; A NATURAL REMEDY FOR TREATING DANDRUFF

Principal Investigator : Tehreem Hasan

Co-Investigators: Tooba Tahir, Warisha Munim, Sheza Maryem Kalim, Radia Sehar.
University of Karachi

Introduction :

Dandruff is considered as one of the most common hair problems faced by both genders all over the world. Usually anti-dandruff shampoos and medications are used depending upon the severity and cause. Mostly people prefer the use of home remedies as they are cheaper, safer, have minimum side effects and are easily accessible

Objectives :

1. to evaluate the non-pharmacological remedies followed by population
2. and to assess the awareness regarding use of banana as an anti-dandruff therapy.

Methodology:

A cross sectional survey was conducted comprising of N=200 individuals including both males and females from different areas of Karachi. The questionnaire was designed to evaluate population suffering from dandruff and the treatment therapy preferred as well as their awareness regarding banana as a potential anti-dandruff agent.

Results:

Our results showed that 64.4% of the population evaluated had dandruff. 33.7% population used anti-dandruff shampoo whereas 48.3% claimed that they used different oils and anti-dandruff shampoo. 5% used yogurt and 2.5% suggested incorporating egg in oil for better effect. Of the population evaluated 79% had no idea that banana could be used as anti-dandruff agent.

Conclusion:

1. Dandruff is very common in our population and different factors such as less oiling, using hard water, hot water etc. may also play a role besides pathological causes.
2. Banana can improve manageability and shine while moisturizing skin and helping to prevent and control dandruff. It would serve as a very good alternative therapy for treating dandruff.

Key words: banana, herbal, dandruff.

CHANGING PATTERNS OF COMPLICATIONS IN DIABETES MELLITUS AROUND THE WORLD: REVIEW OF EVIDENCE

Principal Investigator: Ziaullah Khan

Co-investigators: Muhammad Usama, Inamullah Khan

Bannu Medical College-KMU, Bannu KPK

Introduction:

The efficacious management strategies ranging from oral medications to artificial insulin-pumps have led to the change in the patterns of complications associated with DM. These complications include metabolic and hemodynamic instabilities, micro- and macro-vascular diseases (1-4).

Objectives:

We aimed at reviewing the current literature on the changing patterns of complications in DM around the world.

Methodology:

We searched PubMed and Medline databases for studies assessing the prevalence of complications in diabetes mellitus around the world. A total of 65 articles were reviewed by the authors, of which 33 were eliminated due to low level of evidence. Data from the final 32 articles deemed relevant to the topic were included in the final results of this review article.

Results:

The global prevalence of DM has been estimated around 415 million (1). The cardiovascular diseases-(CVD).and stroke related mortality has declined by an average 50% in many western countries (5-20). On the contrary, the incidence of DM-related end-stage renal disease has noticed varying trend over the last couple of decades (21-24). The global incidence of retinopathy and lower extremity amputations have been reduced by an average 34% and 85% respectively (25-29). The hospital visits related to acute and preventable complications including diabetic ketoacidosis, hypoglycemia and hyperglycemia are on the declining trends (30-32).

Conclusion:

The modern literature has enhanced our understanding of the DM-related complications, provided ways to tackle and reduce the incidence of such complications. Hence, there has been a global trend of reduction in incidences DM-related of CVD mortality, strokes, retinopathy and extremity amputations.

Keywords: Diabetes Mellitus, Complications, Cardiovascular Diseases, Mortality, End-Stage Renal Disease.

CHEMICAL AND PHARMACOLOGICAL EVALUATION OF ETHANOLIC EXTRACT OF GLYCYRRHIZA GLABRA LINN

Principal Investigator: Afshan Siddiq

Co-Investigators: Komal Bai, Duaa Fatima, Haseeb ur Rehman, Asma Shamim
University of Karachi

Introduction:

Glycyrrhiza glabra Linn is a member of the Fabaceae family known as licorice. Traditionally it is used in many systems of medicines including Unani, Ayurveda, Homeopathy and Chinese to cure various types of complications. Generally, licorice is used as mild laxative, anti-arthritic, anti-inflammatory, anti-viral, anti-ulcer, aphrodisiac, estrogenic, antioxidant, antineoplastic and anti-diuretic. As the root of the plant contains a high percentage of glycyrrhizin which is fifty times sweeter than sugar. Hence in medicine may be used as sweetening agent for various dosage forms.

Objectives :

1. To evaluate the chemical constituents and pharmacological effects of Glycyrrhiza glabra Linn. through in-vitro and in-vivo assay.

Methodology:

For in-vivo study, biochemical tests were done on rats after oral administration of licorice. In in-vitro assays, ethanolic extract was prepared and evaluated for different pharmacological activities.

Results:

1. It constituted phytoconstituents such as glycyrrhizin, glycyrrhizinic acid, glabrin A&B, glycyrrhetol, glabrolide, isoglabrolide, iso-flavones, coumarins, triterpene sterols.
2. Glycyrrhiza glabra linn shows antioxidant and lipoxygenase inhibitory activity.
3. Acetylcholinesterase enzyme was also inhibited by the extract.
4. Hypocholesterolemic effect was also observed significantly.
5. The extract possesses activity in boosting Hb (Hemoglobin), RBCs (Red Blood Cells) and WBCs (White Blood Cells), low platelet and low potassium levels were also observed with its use.

Conclusion:

1. The study suggests that the irrational use of licorice may be fatal due to electrolyte imbalance, thrombocytopenia and hypokalemia.

Keywords: Glycyrrhiza glabra Linn, Pharmacological, Licorice, Fabaceae

CLINICAL EVALUATION OF POLY HERBAL FORMULATION FOR INCREASING PLATELET COUNT IN DENGUE FEVER PATIENTS

Principal Investigator: Sanam Rafaqat Ali

*Co-Investigators: Areeba Aijaz Horani , Mushtaq Ahmed, Zaidi SZ.
Faculty of Eastern Medicine, Hamdard University Karachi, Pakistan.*

Introduction:

Currently Pakistan is facing abundant incidence of dengue fever. Luckily Carica papaya L. is cultivated over the country up to greater extent. Papaya leaves are known to be used to increase platelet count and benefit dengue fever patient. Dengue fever is a viral disease that has rapidly spread globally in 21st century. Dengue fever is a mosquito borne disease which is transmitted by female mosquitoes. Dengue hemorrhagic fever and dengue shock syndrome are more dangerous and lethal form with symptoms like severe bleeding, respiratory distress, severe abdominal pain and organ injury. Risk factors of dengue fever include climate change, urbanization, travel, Socio economic activity, miscommunication and shortage of surveillance.

Objectives:

1. is to evaluate the efficacy of this poly herbal formulation
2. and to develop a source of platelet increasing in dengue fever patient.

Methodology:

This Open label single arm randomized clinical trial study was conducted in Karachi. A data of 50 patients were collected who reported in Herbicare Clinic, the clinical diagnosis of Dengue fever was made by a clinician based on patients' presentation and CBC.

Results:

Mean Platelet count before treatment 136840/ul. Minimum range was 11000/ul while maximum range was 271000/ul. Mean platelet count after treatment was 247940 minimum count was 33000 while maximum platelet count was 576000. Mean increase in platelet count after treatment was 1,11,100.

Conclusion:

It is concluded that mean increase in platelet count after treatment was 1,11,100.

Keywords: Alternative Medicine, Thrombocytopenia, Dengue Fever, Carica papaya.

COMPARING THE ANXIETY LEVEL IN PATIENTS ATENDED BY DENTAL STUDENTS AND DENTAL SURGEONS

Principal investigator: Maham Barkat

Co-investigators: Barira Shahid, Maria Rehman, Faiza Khurshid, Mehreen, Amna Saeed
Peshawar Dental College

Introduction :

Dental Anxiety is defined as an aversive emotional state of apprehension or worry in anticipation of the feared stimulus of dental treatment. Dental Anxiety has been found to have a major role in avoiding of dental treatment. According to some studies, experiences of painful dental procedures and trauma develop fear of dental procedure. Also, the patients attending dental hospitals in emergency have higher level of anxiety than general population.

Objectives :

1. To compare the anxiety level in patients attended by dental students and dental surgeons.

Methodology:

A descriptive cross-sectional study was conducted. The data was collected from the OPD of Peshawar Dental College and Hospital during the month of January to February 2020. A total of 120 patients participated in this study. The data was analyzed through SPSS version 20.

Results:

1. Out of 120 participants 35% were males and 65% were females among the patients who visited OPD of Peshawar Dental College and Hospital.
2. Among them 10% of people were extremely anxious when their tooth is drilled by a dental surgeon while 18% were extremely anxious in case of a dental student.
3. About 6% were extremely anxious when they had scaling and polishing done by a dental surgeon while the figure reaches to 10% when this procedure is performed by a dental student.

Conclusion:

1. Patients are much more anxious when a dental student performs their dental procedure as compared to a dental surgeon. S
2. o, it is concluded that there is a need of research studies to determine the responsible factors for increasing anxiety of patients when treated by a dental student.

Keywords: Dental, anxiety, students

COMPARISON OF LOCAL STEROID INJECTION AND SURGICAL DECOMPRESSION IN TREATMENT OF CARPAL TUNNEL SYNDROME

Principal Investigator: Anum Humayun

Co-Investigators: Nasim Khan

Al Nafees Medical College, Isra University, Islamabad

Introduction:

Carpal tunnel syndrome is caused by pressure on the median nerve. The carpal tunnel is a narrow passageway surrounded by bones and ligaments on the palm side of your hand. When the median nerve is compressed, the symptoms can include numbness, tingling and weakness in the hand and arm.

Objectives :

1. To compare the efficacy of local steroid injection versus surgical decompression in treatment of carpal tunnel syndrome in terms of frequency of pain.

Methodology:

A Randomized controlled study was conducted at Benazir Bhutto Hospital, Rawalpindi, Pakistan for a duration of 02 years from 3rd January, 2013 to 2nd January, 2015. The study included 130 patients with carpal tunnel syndrome. Patients were graded according to severity of pain based upon Visual Analog Pain Scale (VAS). Lottery method was used to allocate the patients randomly into two groups. Group A contained 65 patients who were subjected to surgical decompression and 65 patients were in Group B who were injected with local steroid injection. Complete history was obtained from all patients. All the surgical decompressions through mini incision technique. Information were recorded on a pre designed Performa.

Results:

1. Efficacy (at least one grade improvement in pain at one month) was observed to be significantly high in group B patients who were treated with local steroid injection (87.8%) as compared to group A patients who underwent surgical decompression for carpal tunnel syndrome (72.3%).

Conclusion:

1. The steroid injections are more effective than surgical decompression in management of carpal tunnel syndrome.

Keywords: Carpal tunnel syndrome, steroid injection, surgical decompression, pain, entrapment neuropathy, Visual Analog Pain Scale (VAS).

COMPARISON OF VISUAL ACUITY, CONTRAST SENSITIVITY AND COLOR VISION IN PEOPLE WITH MULTI-TRANSFUSED BETA-THALASSEMIA USING INJECTABLE DEFEROXAMINE AND ORAL DEFERASIROX

Principal Investigator: Hikmet Ullah Afridi

Co-Investigator: Arroba Naeem

Pakistan Institute of Community Ophthalmology (PICO)

Introduction :

Thalassemia, one of the most common severe genetic blood disorders, affects approximately 4.4% of every 10,000 live births throughout the world. Repeated blood transfusion (B.T.T) leads to iron loading, to treat that chelation (C.A) is advised to subjects who indirectly affects eye & also effect visual acuity (VA), contrast sensitivity (CS) and color vision (CV).

Objectives :

1. To compare VA, CS and CV in β -thalassemia (BT) subjects using injectable Deferoxamine and oral Deferasirox
2. and to compare VA, CS and CV in BT subjects on treatment with C.A (inj. Deferoxamine and oral Deferasirox) and subjects with B.T.T.

Methodology:

This comparative cross-sectional study was carried out in Fatimid Foundation Hayatabad Peshawar from 1 September 2019 to 1 February 2020. Total 74 study participants with BT were selected. Subjects were divided in to groups on the basis of B.T.T & C.A. After detail history and basic ocular examinations, VA, CS & CV were measured on ETDRS LogMAR, Pelli-Robson CS chart and PV-16 CV Test. All data was analyzed using SPSS version 17.

Results:

1. VA of both eyes was significantly dropped in participants using injectable deferoxamine ($p = 0.013$, $p = 0.021$).
2. The results of effect on CS in participants who were using combination of both oral and injectable C.A and in injectable deferoxamine shows a significant reduction in CS in both eyes ($p = 0.001$ and 0.022) ($p = 0.033$ and 0.048).
3. No significant relation was observed between CV and C.A. No significant relationship was observed between VA, CS, CV & B.T.T only.

Conclusion:

1. Injectable and combination of oral and injectable C.A have an adverse effect on VA & CS.
2. VA, CS should be assessed regularly in subjects with BT, so that visual deteriorations can be prevented and managed on time.

Keywords: Deferoxamine, Deferasirox, β -thalassemia, Visual acuity, Contrast sensitivity.

CONTRAST SENSITIVITY IN SUBJECTS WITH DRY EYES, ATTENDING EYE OUT PATIENT DEPARTMENT AT HAYATABAD MEDICAL COMPLEX, PESHAWAR

Principal Investigator: Komal Yaseen

Pakistan institute of community ophthalmology (PICO), Peshawar.

Introduction :

Dry eye is the disease of tear film and ocular surface that causes symptoms of visual disturbance and contrast sensitivity (CS) is the ability of eye to differentiate target from its background.

Objectives :

1. To evaluate the impact of dryness on CS
2. To compare CS in different grades of dry eyes.

Methodology:

Study design: Descriptive cross sectional. Study setting: Eye out Patient department at Hayatabad medical complex Peshawar. Study duration: 6 months (September 2019-February 2020) Sampling: Non-Probability Purposive Sampling. Data collection tools: Schirmer tear strips, Pelli-Robson CS chart, Standardized Patient Evaluation of Eye Dryness questionnaire. Analytical method: SPSS 17.0

Results:

1. The Mean log CS was 1.67, Normal on schirmer reading were having mean log CS 1.71. Mild 1.66, Moderate 1.67, Severe 1.71.
2. Mean dryness was 9.52mm on schirmer reading.
3. Mean dryness in Female were 10.8mm on schirmer reading. Mean dryness in male 8.63mm on schirmer reading.
4. Mean log CS in Females were 1.64 and male were 1.70. CS in age group (10-20) years was 1.70, (21-30) years was 1.75, (31-40) years was 1.74, (41-50) years was 1.61, (51-60) years was 1.54, (61-70) years was 1.57.
5. mean log CS in asymptomatic Subjects were 1.70 and Symptomatic subjects 1.67.

Conclusion:

It is concluded from this study that CS was reduced in dry eye subjects. but there was no linear relation of contrast sensitivity with level of dryness.

Key Words: Dry eye, CS, Schirmer tear strips.

CORRELATION OF CONVERGENCE WITH LITERACY RATE.

Principal Investigator: Kiran Fatima Rashid,

Co-Investigators: Sana Nisar and Maryam Mehmood.

Student of school of optometry, The University of Faisalabad, Faisalabad.

Introduction:

Convergence is a dissuade movement of eyes in which eyes move inwards so that line of sight will intersect in front of eye. Convergence Imbalance strongly have a negative effect on daily living such as it can affect quality of life, reducing Binocular performance of eyes and also interfering with near activities

Objectives:

1. The purpose of this study is to determine the correlation of convergence insufficiency and convergence excess with literacy rate and reading hours.

Methodology:

Data was collected by descriptive cross-sectional study at Cambridge university school Faisalabad and the agriculture university Faisalabad to study the problems regarding near work. All patients had gone through a proper examination starting from the assessment of visual acuity using LogMAR chart, convergence insufficiency and excess was assessed with RAF ruler and the data was analyzed by SPSS version 20.

Results:

1. Result of this study showed that convergence had a significant change with the change in literacy rate.
2. In patients with visual acuity 6/6 convergence assessed by using RAF ruler was less than $p < 0.05$.
3. The total sample was divided into three groups that were under-metric, under-graduates and post graduates.
4. In under-metric and under-graduate group convergence insufficiency was found and post-graduate group convergence excess was found.

Conclusion:

1. It is suggested from present study that convergence correlates with literacy rate and reading hours.
2. As literacy rate increases convergence changes from normal to excess.
3. When we assessed their convergence using RAF ruler it was found that convergence insufficiency was more in under-metric and under-graduate students based on their workload and in post-graduate students excess of convergence was found due to their excessive workload.
4. Proper guidelines regarding near activities and usage of the 20/20 rule must be adapted.

Keywords: Convergence excess, convergence insufficiency, literacy rate, reading hours, RAF ruler.

EFFECT OF ASCORBIC ACID ENRICHED DRINK ON INTRAOCULAR PRESSURE AMONG WEIGHTLIFTERS.

Principal Investigator : Maham Fatima

Co-Investigators: Rida Farrukh and Momina Sajjad

School of Optometry, The University of Faisalabad, Faisalabad.

Introduction :

Intraocular pressure is the pressure of fluid inside the eye. The fluid is produced by aqueous humor and drainage from trabecular meshwork. The aqueous humor is a clear fluid that is produced in the eye by the ciliary body. The aqueous flows through the pupil and fills the anterior chamber of the eye. The aqueous drains from the eye through a structure called the trabecular meshwork, in the periphery of the anterior chamber, where the cornea and iris meet.

Objectives :

1. The purpose of this study was to compare variation of IOP among weightlifters before and during exercise after intake of ascorbic acid enriched drink.

Methodology:

This comparative cross-sectional study was conducted from November 2019 to January 2020 at Be-Fit Gym, Al-Fahad Gym, Smarts Health & Fitness Club, Golds Gym Faisalabad. 90 males aged between 18 to 35 years were included for this study. The data was collected by Questionnaire based Performa. Data was analyzed by using Paired t-test and repeated measure ANOVA test using SPSS 20 version. All weightlifters were undergone through alkane drops, fluorescein strips and Perkins Tonometer. During this procedure the measurements were taken after 30 minutes of exercise. In Group A we took three measurements before exercise, during exercise and after exercise. After 30 minutes of vigorous exercise we took measurements after 1 minute of exercise. In Group B we took four measurements before exercise, during exercise, after exercise and after intake of Ascorbic Acid Enriched Drink. In Group B measurements were taken after 30 minutes of exercise and then after 30 seconds of intake of Ascorbic Acid Enriched Drink.

Results:

1. IOP is found significantly increased ($P=0.000$) during exercise with the average mean $\pm$ S.D of 21.866 ± 0.9732
2. and significantly reduced ($P=0.002$) after intake of ascorbic acid enriched drink with the average mean of 13.60 ± 1.734

Conclusion:

1. There is a significant difference between the results of IOP measured during exercise and after intake of ascorbic acid enriched drink.
2. The results concluded that IOP got reduced after intake of ascorbic acid enriched drink.

Keywords: Ascorbic Acid, Intraocular Pressure, Weightlifters.

EFFECT OF DIET IN MANAGEMENT OF TYPE II DIABETES MELLITUS

Principal Investigator: Saad Rizwan

Co-Investigators: Hassan Hafeez, Shahrukh Imtiaz, Utban Cheema,

Taha Nayyar, Huma Mustahab

Fazaia Medical College

Introduction :

Type 2 Diabetes Mellitus is considered as one of the most common diseases. The etiology of this disease is complex and is associated with various factors in which diet plays a major role.

Objectives :

1. To find out the role of diet in managing Type II Diabetes mellitus

Methodology:

A cross sectional descriptive study conducted at OPDs of various hospitals in Punjab, over a period of 2 months with a total of 107 patients, 83 males and 24 females. Study population consisted of those who were above 40 years of age and had type 2 diabetes mellitus. A structured questionnaire regarding eating habits and types of food was used to collect information.

Results:

1. The patients who were eating greater amounts of carbohydrates achieved poor control of blood sugar levels. These patients were more prone to developing complications at an earlier stage. This was the group of people who didn't have any diet counselling or a properly devised diet plan.
2. On the other hand, patients who consumed a diet lower in carbohydrates and foods with lower glycemic indices were better able to control their blood sugar and in turn prevent complications.

Conclusion:

1. The patients who didn't have any meal plan and diet counseling consumed more carbohydrates which contributed to poor control of blood glucose levels and worsened DM and associated complications.

Keywords: Diabetes Mellitus, Diet, Carbohydrate, Complications, Blood glucose.

EFFECT OF MEDICINAL PLANT EXTRACTS AND HERBAL PRODUCT ON THE INTESTINAL TRANSIT TIME IN MICE USING CHARCOAL MEAL

Principal Investigator : Maryam Amir Ali

*Co-Investigator: Hafiza Javaria Anwar, Ayesha Arshad, Hafiza Asma Khan,
Farzana Sadaf, Humera Ishaq
Hamdard University, Karachi*

Introduction :

Keywords: Murayya koenigii; Brassica rapa; Hamdard Medicinal plants have been beneficial for human health since ancient times. Their effect on Gastrointestinal Tract is also very important as GI health is dependent on GI transit. Drugs affecting GI transit can be used to treat constipation and diarrheal conditions.

Objectives :

1. To observe the effect of Ethyl acetate extract of Murraya koenigii and Hydro alcoholic extract of Brassica rapa var. Rapa and herbal preparation of Hamdard Laboratories (Waqf) Pakistan, "Hamdard Ghutti" on intestinal transit.

Methodology:

Presently experimental study was designed in Hamdard University Lab for the total duration of two days (one week of acclimatization excluded). Study included five treatment group three animals were allotted to each group by a simple random sampling technique. Intestinal transit was calculated and analyzed using SPSS-20.

Results:

1. One-way ANOVA showed highly significant difference between groups ($F=16.96$, (4, 10), $p < 0.001$) on further analysis using LSD test the response of groups was of Ghutti > Murraya koenigii > Duphalac > Brassica rapa compared to normal saline.
2. MURK 50 mg/kg and BrasHA 100 mg/kg when compared to duphalac, showed no significant difference whereas Ghutti showed significant rise ($p < 0.001$) in intestinal transit.

Conclusion:

1. It can be concluded that as Ghutti is a combination of multiple drugs which has strong correlation with peristaltic movement of gut, shows highest transit i.e.
2. it increases GI motility significantly which is followed by Murayya koenigii, therefore these drugs can be used to treat constipation.

Ghutti, Gastrointestinal motility, Gut transit time.

EFFECT OF SLEEP DURATION ON DIFFERENT TYPES OF MYOPIA.

Principal Investigator: Memona Ashiq Ali

Co-Investigators: Ridha Anwar and Ammara

School of Optometry, The University of Faisalabad, Faisalabad.

Introduction :

Myopia is one of the leading causes of blindness. Sleep deprivation increases the onset of myopia and acts as an independent factor. There is an inverse relationship between sleep duration and myopia.

Objectives :

1. To determine the type of myopia more associated with sleep duration.
2. To assess the effect of sleep on severity of myopia.

Methodology:

The study was conducted from November 2019 to April 2020. Across sectional study was done included 80 subjects selected by convenient sampling technique. In each patient, a pro forma was filled after an informed consent to record the relevant data of the respondent and measurements were taken by using keratometry, auto-refractometer and A-scan. Subjects with hypermetropia, astigmatism, presbyopia, sleeping disorder and systemic diseases were excluded. Analytical chi-square technique was applied to the data using SPSS version 20.0 for statistical analysis.

Results:

1. The results concluded that the severity of myopia increased with less sleep intake ($p=0.03$).
2. Axial type of myopia was found to be more associated with sleep deprivation.

Conclusion:

1. There is an inverse relationship of sleep with myopia.
2. Sleep deprivation affects the axial type of myopia more than the curvature type.

Keywords: Axial, Curvature, Myopia, Sleep duration.

EFFICACY AND COMPARISON OF USING BLUE LIGHT BLOCKING FILTERS AND EYE EXERCISES ON EYE STRAIN AND EYE FATIGUE

Principal Investigator: Azka Zarbab Akram

Co-Investigators: Farwa Qamar, Sana Maqsood

Students of School of Optometry, The University of Faisalabad

Introduction :

In this modern era of technology eye strain and eye fatigue are most common problems encountered in visual display users. Blue light emitted from VD is very noxious to our eyes. Blue light is an important cause of eye fatigue and eye strain in VD users.

Objectives :

1. The purpose of this study was to make people aware about the importance of using BB protectors and eye exercises for eliminating eye strain and eye fatigue.

Methodology:

We conducted an interventional study. A sample of 40 subjects with eye strain and eye fatigue were selected for our research. Subjects with age 18-25 years and having corrected refractive error were selected. Eye strain was checked via questionnaire, near acuity via Snellen and subjects were divided into 2 groups (n=20 each) blink exercise+BB protectors were given to one group and 20-20 exercise+BB protectors were given to the second group followed up after 15 and then 30 days respectively. Statistical tests Chi square and repeated ANOVA tests were applied by SPSS 20.0 version for statistical analysis.

Results:

1. The subjects undergoing blink exercise reported relaxation of muscles and reduced eye strain ($p=0.04$) after repeated follow-ups, students given 20-20 exercises reported reduced eye strain in lesser number of follow-ups as compared to blink group ($p=0.02$).
2. No change was reported in visual acuity.

Conclusion:

1. 20-20 exercise was more effective than blink exercise.
2. The group with 20-20 exercise and BB protectors have reported more reduction in eye strain and eye fatigue than blink exercise group.

Keywords: BB protectors, blink exercise, eye fatigue, eye strain, near visual acuity, 20-20 exercise.

EVALUATION OF VISUAL ACUITY, CONTRAST SENSITIVITY AND COLOR VISION DURING MENSTRUAL CYCLE AMONG YOUNG FEMALES.

Principal Investigator: Hikmat Ullah Afridi.

Co-Investigator: Sonia Ali Khan.

Pakistan Institute of Community Ophthalmology (PICO), Peshawar.

Introduction:

Hormonal fluctuations during MC leads to somatic changes, ocular changes such as changes in corneal thickness, tear film, optic nerve head and some visual functions such as visual acuity (VA), contrast sensitivity (CS) and color vision (CV).

Objectives :

1. To evaluate the changes in VA, CS and CV during MC in young females.
2. To compare the effect of VA, CS and CV during different phases of MC.

Methodology:

This cross-sectional study was conducted in low vision room of eye department at HMC from 1 September 2019 to 1 February 2020. Out of 66 female students we were able to test only 35 female students. Females were examined through one cycle during five phases of MC. After detailed history and basic ocular examination, VA, CS and CV was measured on ETDRS LogMAR chart, Pelli-Robson CS chart and PV-16 CV test respectively. OP was confirmed by LH blood test. Data was analyzed using SPSS version 17.

Results:

3. VA was reduced in both eyes in Pre-MP when compared to OP ($p=0.001$, $p=0.001$), Post-OP ($p=0.002$, $p=0.004$) and Pre-OP ($p=0.030$, $p=0.003$).
4. CS was reduced in both eyes in Pre-MP by comparing it to MP ($p=0.006$, $p=0.023$), Pre-OP ($p=0.30$, $p=0.003$), OP ($p=0.001$, $p=0.001$) and Post-OP ($p=0.002$, $p=0.004$).
5. CS was decreased in both eyes in MP ($p=0.023$, $p=0.005$). CV was normal only color confusion was significant when comparison was done for Pre-OP and OP ($p=0.023$) and Pre-MP and OP ($p=0.012$).

Conclusion:

1. MC effects the VA, CS and CV.
2. Female patients having an impaired vision must be inquired about phase of their MC visiting ophthalmologist/optometrist/ophthalmic department who reports changes in visual functions.

Keywords: Menstrual cycle, visual acuity, contrast sensitivity.

FACTORS ASSOCIATED WITH INCREASED RISK OF CRANIOFACIAL MALFORMATIONS.

Principal Investigators: Saad Slah-ud-Din.

*Co-Investigators: Sharjeel Mahmood, Syed Muhammad Mahd
Shalamar Medical & Dental College, Lahore.*

Introduction :

Craniofacial anomalies comprise of a significant component of birth defects, with oral clefts the second most common entity in this group. Birth defects are among the leading causes of infant mortality and morbidity around the world.

Objectives :

1. To find the factors associated with increased risk of craniofacial malformations.

Methodology:

It was a cross sectional study; data was collected from the file of the babies admitted in the pediatric department of Shalamar Hospital by purposive sampling technique. Maternal antenatal investigation reports and by maternal history of medication, diabetes, hypertension, radiation exposure, smoking & alcohol consumption and family history of congenital anomalies.

Results:

1. Of the 259-sample size, 26% of children had cleft lip, 27% had cleft palate, 42% had both cleft lip and palate, 2% had cleft lip with nasal deformity, 2% had cleft lip and palate with nasal deformity and 1% had hypertelorism.
2. 8% of neonates with craniofacial malformations had family history of congenital malformations, 81% of the neonates had history of parental consanguinity, whereas 19% were unrelated.
3. 37% of the mothers had diabetes, 4% had hypertension, 4% had both the gestational diabetes and hypertension and 55% had neither of these diseases.

Conclusion:

1. Defect of both cleft lip and palate had the highest prevalence (42%).
2. Parental consanguinity is one of the leading factors associated with increased risk of the craniofacial malformations.

Key Words: Craniofacial Malformations, Birth Defects, Associated Factors.

FAILURE OF AUSTIN MOORE IMPLANT: AN EXPERIENCE FROM A TERTIARY CARE HOSPITAL IN A LOW- AND MIDDLE-INCOME COUNTRY

Principal Investigator: **Mir Ibrahim Sajid,**

Co-Investigators: Arif Ali, Perwaiz Hashmi, Shahryar Noordin, Masood Umer
Aga Khan University, Karachi

Introduction :

Austin Moore prosthesis has gained popularity where the pathology is restricted to the femoral head or neck and the acetabulum remains unaffected. These conditions include, fractures of the femoral neck, avascular necrosis of the femoral head and in non-union fractures

Objectives:

1. To evaluate the various causes and corresponding factors while leading to the failure of an Austin Moore implant.

Methodology:

This is a retrospective study which includes all patients' who presented with to our institute, Aga Khan University Hospital, Karachi between the years 2013 and 2018 following complications of a prior failed Austin Moore procedure. Patients who presented with complications of any other hip arthroplastic procedure were excluded from the study as were the patients who were lost to follow-up for at least 6 months.

Results:

1. Osteoporosis was an evident finding in our patients. In the sample of 30, 22 (73%) of the patients had osteoporosis of which. 16 (73%) were females and 6 (27%) were male.
2. Of the patients with osteoporosis, 16 (73%) were obese (BMI>25) and 3 (13.6%) had a normal BMI. Of the people who did not have osteoporosis, 4 (50%) had a normal BMI.
3. Perhaps, the most important (16, 53%) reason for the failure of Austin Moore was infection of the implant.
4. The authors used the Harris Hip score to screen the patients with the majority (16, 53%) of them having a score greater than 60.

Conclusions:

1. It's imperative to look at the various causes of implant failure, especially when it comes to middle-and lower-income country such as ours, where the mode of payment is "out-of-pocket",
2. Hence the burden lies on the healthcare team to work on the indicators of failure, as mentioned in the study, to guide them in decreasing the incidence of Austin Moore failure.

Keywords:

Austin Moore Implant, Failure, Infection, Loosening of Implant, Dislocation

FLAMMULINA VELUTIPES MEDIATED GREEN SYNTHESIS OF SILVER NANOPARTICLES (AG-NPS) AND ITS BIOLOGICAL APPLICATIONS

Principal Investigator: Rabia Liaqat

Co-Investigator: Sumaira Shah, Kainat Bibi, Shah Faisal

Department of Botany and Biotechnology, Bacha Khan University Charsadda, Pakistan

Introduction :

To overcome the recent drawbacks of physical and chemical methods, Bio-mediated synthesis of nanoparticles achieved great attention due to innovative and unique properties in different field.

Objectives :

1. In the present study, silver nanoparticles (Ag-NPs) were synthesized using extract of *Flammulina velutipes*.

Methodology:

Ag-NPs were characterized by using UV–Visible spectroscopy, X-Ray Diffraction (XRD), Energy Dispersive X-Ray (EDX) and Scanning Electron Microscopy (SEM).

Result:

X-ray diffraction confirmed the crystalline nature of nanoparticles. SEM revealed the morphological features with size of nanoparticles being 50 nm. FTIR analysis confirmed the capping of nanoparticles by chemicals present in *Flammulina velutipes*. Later EDX confirmed the elemental composition of nanoparticles. The bio-synthesized nanoparticles show tremendous antibacterial and anti-fungal activity against different strains. The nanoparticles also show considerable DPPH, reducing power and total antioxidant capacity. Insignificant alpha amylase activity and zero percent biocompatibility was shown by test samples at different concentrations. Synthesized nanoparticles also have ability to inhibit protein kinase enzyme. Ag NPs showed potent cytotoxic activity against HepG2 cell line and amastigote axenic culture of leishmania.

Conclusion:

1. Overall it was concluded that NPs played a vital role in multiple biological assays however comprehensive in-vivo and cytotoxic research is necessary to be carried out.

Keywords: *Flammulina velutipes*, Ag-NPs, Biological Applications.

FREQUENCY AND ETIOLOGY OF PANCYTOPENIA IN A TERTIARY CARE HOSPITAL OF LAHORE.

Principal Investigator: Usama Tariq

Co-Investigators: Nayab Fatima and Momina Chishti.

Shalamar Medical and Dental College, Lahore.

Introduction :

Pancytopenia is an alarming triad of anemia, leukopenia, and thrombocytopenia. Its etiology varies with familial and ethnic background.

Objectives:

1. To determine the frequency of pancytopenia and its related causes in a tertiary care hospital of Lahore.

Methodology:

A prospective cohort study was conducted on 100 consecutive pancytopenic patients who came to Shalamar Hospital from Jan-Dec 2017. Study was approved from the Institutional Review Board of Shalamar Medical and Dental College. Participants were consented before taking history and detailed physical examination. Complete blood counts were performed on all blood samples, along with additional related investigations as per advised. For statistical analysis Microsoft Excel and Minitab version 17 were used.

Results:

1. Total 100 patients with pancytopenia were studied. Their recorded age limits were 09 and 82 year with mean of 50.42 ± 2.61 years, amongst them 61-70 years age group was noticed for the maximum frequency of pancytopenia.
2. Male to Female ratio was 48:52.
3. Elevated pulse rate, blood pressure (BP) and temperature, along with splenomegaly, ascites, oro-intestinal abnormal bleeding, hepatomegaly and shrunken liver were noticed as the most frequent clinical presentations.
4. Etiologically Chronic Liver Disease (CLD) and Megaloblastic Anemia were ranked as the most common and second common underlying pathologies respectively amongst all cases of pancytopenia.

Conclusion:

1. Female predilection with >60 years of age was commonly associated with pancytopenia, along with frequent clinical features of raised pulse, BP, temperature, hepato-splenomegaly, ascites, abnormal bleeding from various sites and shrunken liver.
2. CLD and megaloblastic anemia were ranked as the most repeated etio-pathologies.

Keywords: Pancytopenia, Etiology, Frequency, Tertiary care hospitals

FREQUENCY AND OUTCOMES OF UNPLANNED REOPERATION FOLLOWING A CRANIOTOMY OR CRANIECTOMY AT TERTIARY CARE HOSPITAL IN PAKISTAN

Principal Investigator: Mir Ibrahim Sajid

*Co-investigators: Hani Abdullah, Asra Tanweer, Noor Malik, Ather Enam
Aga Khan University, Karachi*

Introduction:

Across surgical specialties, multiple studies have reported outcomes and complication rates, specific to particular entities and procedures. Given the intricacy, neurosurgery is considered one of the most complicated field, reporting a relatively higher mortality and morbidity rates as compared to other surgical specialties.

Objectives:

1. To explore the various causes of re-do craniotomy in an attempt to understand the etiology and reduce the chances of a future incident.

Methodology:

This is a retrospective cohort study which was conducted on the patients who presented under the section of Neurosurgery at Aga Khan University Hospital, Karachi between 1st Jan 2010 to 31st December 2017 who underwent unplanned reoperation within 30 days of initial craniotomy. The data was then collected on a structured proforma using medical records of the patients and Patient Care Inquiry (PCI) data base of the hospital.

Results:

1. The frequency of unplanned reoperations within 30 days after craniotomy was 3.5%.
2. The median age of the patients was 36.
3. The major indicator of first surgery was tumor resection (48%) followed by hemorrhage (17%), trauma (15%) and vascular insult (12%).
4. The major indicator of unplanned re-operation is hemorrhage (40%) followed by hydrocephalus (22%), cerebral edema (13%) and residual tumor (13%).

Conclusion:

1. With an increase in re-operation rates across all surgical specialties, this indicator has become of great value in assessing the quality of care provided by the hospital, the surgeon and the caring staff.
2. Multiple risk factors which influence this rate can be taken care of in ensuring that the rate of unplanned operations decrease, in an attempt to lower the mortality and morbidity rate.

Keywords: Re-do Craniotomy, Incidence, Etiology study

IDENTIFICATION OF MISSENSE MUTATIONS IN THE TYROSINASE GENE CAUSING OCULOCUTANEOUS ALBINISM IN CONSANGUINEOUS FAMILIES.

Principal Investigator: Shah Faisal,

Co-Investigators: Sajjad Ali Shah, Farhan Ullah, Hashir Muzamil, Sifat Ullah.

Department of Biotechnology, Bacha Khan University Charsadda, Pakistan.

Introduction :

OCA is an autosomal recessive disease occurred by an incomplete or complete failure of the formation of the melanin pigment synthesis and explained by less pigment production of skin, hair, and eyes. A homozygous or compound heterozygous variation in the *TYR* gene causes most common form of OCA1.

Objectives :

1. The aim of the research was to find out the molecular basis of OCA in the selected families from District Charsadda, Khyber Pakhtunkhwa, Pakistan.

Methodology:

The *TYR* gene of all persons were amplified by PCR, sequenced and measured with a normal sequence of the exons. Diagnostic affected persons showed white skin, white or golden-brown hair and involuntary movement of eyes.

Results:

1. Genetic analysis showed a mutation at (c.1205G>A) in exon 4 in the patients of family-1, whereas sequence analysis of normal individuals has shown no sequence change in the respective exon.
2. Interestingly, a possible carrier mutation was recognized in the abnormal patients of Family-3, who carried (c.575C>A) carrier mutation in exon 1 of the *TYR* gene showing white, golden hair and white skin.
3. Using PolyPhen-2, I-Mutant and Mutation Taster tools, a missense amino acid substitution (p. Arg402Gln) and (p. Ser192Tyr) were identified in the translated protein.

Conclusion:

1. The current study is important in terms that it confirms important variations in this region, which are responsible for Oculocutaneous albinism.

Keywords: Albinism, Amino acid, Melanin, Mutation, Tyrosinase.

IMPACT OF DAILY LIVING ACTIVITIES ON BLINK RATE AND BLINK PATTERNS

Principal Investigator: LaibaSandhu
Co-Investigators: Sara Gilani, RabiaZaidi
 The University of Faisalabad, Faisalabad.

Introduction :

Blink plays an important role in protection of eye surface and acts as a line of defense as it helps to clean eye surface from debris and to distribute the tear film. However, blinks vary during different daily living tasks such as, computer use, gazing, scotopic vision, reading and conversation.

Objectives:

1. Our purpose was to measure blink rate and pattern of blink per minute
2. and to compare variations in blink rate of both genders during daily living activities

Methodology:

A descriptive cross-sectional study was conducted from November 2019 to January 2020 in University of Faisalabad and Aspire college. A total of 200 subjects of both genders and age arising from 18-25 years were included. Different instruments used short stories or near vision charts, puzzle games, pencil, dim light. The people were given interesting short stories to read. On the computer they were asked to solve interesting puzzle games. In different gazes they were given a target and smooth eye movements were observed. In scotopic condition dim light was used and the persons were engaged in a healthy conversation. We took 3 readings and average to minimize the subjective error.

Results:

1. By applying Descriptive Statistics, we compared the means of both the genders with different daily living activities.
2. In males during computer use the average mean is 2.83 ± 2.91 . During conversation 24.66 ± 12.43 , in different gazes 5.03 ± 4.85 , while reading 2.75 ± 2.36 and in dim light 17.54 ± 12.52 .
3. In females the average mean during computer use is 5.75 ± 4.44 , During conversation 24.71 ± 8.60 , In different gazes 8.12 ± 5.20 , while reading 4.47 ± 4.38 and in dim light 14.27 ± 6.18

Conclusion:

1. This study highlighted variations in blink rate and blink patterns in both genders during different daily living activities and different tasks have an impact on blink rate and blink patterns.
2. Blink rate was reduced during computer use and while focusing on task and increased during conversation
3. and females tend to blink more than men
4. and there are more incomplete blinks during computer use and reading.

Keywords: Blink rate, blink pattern, computer use, conversation, gazing, scotopic

INFLUENZA VACCINATION STATUS, ATTITUDE AND PRACTICES AMONG HEALTHCARE WORKERS OF HOLY FAMILY HOSPITAL, RAWALPINDI.

Principal Investigator : Muhammad Sarfraz Khan,

*Co-Investigators: Zubair Warrish, Faiza Aslam, Areeb Khalid, Sarmad Hassan, Basit Ali
Cheema
Rawalpindi Medical University*

Introduction :

Health Care Workers (HCWs) are exposed to influenza may transmit it to susceptible patients, their families and other HCWs. The status of influenza vaccination among healthcare workers (HCWs) is very low.

Objectives :

1. This study was conducted to determine influenza vaccination status, awareness, attitudes and practices among health care Workers of Holy Family Hospital, Rawalpindi.

Methodology:

A descriptive cross-sectional study was conducted at Holy Family hospital, Rawalpindi, Pakistan after approval by the Institutional Research Forum. Health care Workers (HCWs) who met our criteria were interviewed. Study duration was 4 months. Chi-squared test at 5% level of significance was applied (p-values less than 0.05 were considered statistically significant). SPSS (Version-22) for windows was used for data analysis.

Results:

1. 62 (59%) were males amongst 105 participants included in this study.
2. Among all the study participants only 6(5.7%) were vaccinated against Influenza.
3. After excluding the physicians (47.67%), the educational status of remaining staff (51.4%) varied from no formal education (10.5%), primary (9.5%) and matriculation (14.3%) to bachelor (18.1%).
4. The major reason they mentioned for the increased exposure to influenza were interaction/contact with patients 68(64.7%).
5. Inadequate preventive measures taken was a reason presented by 21(20%) study participants.
6. No one 0(0%) had ever influenza serology done.
7. Regarding preventive measures against influenza, 13(12.3%) participants mentioned only physical protection.
8. When inquired about the perceptions regarding the role of influenza vaccine in prevention of disease 47(44.8%) thought that vaccines provide complete protection or immunization against the influenza.

Conclusion:

1. Influenza Vaccination status 5.7% in HCWs is very poor but they are well aware regarding importance of vaccination.
2. Inadequate knowledge is the main reason for not being vaccinated in HCWs.
3. Awareness and vaccination campaign should be run among HCWs to increase their vaccination status.

Key Words: Health care Workers, Influenza Vaccination, Holy Family hospital

INPATIENT MORTALITY FOLLOWING TOTAL KNEE AND HIP REPLACEMENT: AN INSTITUTIONAL EXPERIENCE FROM A TERTIARY CARE HOSPITAL IN LOW- AND MIDDLE-INCOME COUNTRY

Principal Investigator: Mir Ibrahim Sajid

*Co-Investigators: Shahryar Noordin, Perwaiz Hashmi, Arif Ali, Masood Umer
Aga Khan University*

Introduction:

With an aging population, the volume of total knee and hip replacement surgeries has significantly increased worldwide but special attention needs to be put in assessing the in-patient mortality rate following this elective procedure.

Objectives :

1. To evaluate the various factors which contribute to the inpatient mortalities in the patients undergoing total knee and hip arthroplasties in an attempt to reduce them.

Methodology:

This is a retrospective study which includes all in-patient mortalities at our institute, Aga Khan University Hospital, Karachi between the years 2000 and 2018. All the patients who suffered in-patient mortality between years 2000 and 2018 were included. Patients who died after transfer to a rehabilitation facility or after discharge to home were not included.

Results:

1. The mortality rate following total knee and hip replacement at our center is approximately 0.7%. In the 10 cases of total knee replacement.
2. The most common cause of in-patient's mortality was Myocardial Infarction [MI] (65%), followed by pulmonary embolism (15%), pneumonia (15%) and sepsis (5%).
3. In the 10 cases of total knee replacement, all of the patients had hypertension and 4 suffered from diabetes mellitus whereas in 10 cases of total hip replacement 7 of the patients had hypertension and 5 suffered from diabetes mellitus.

Conclusion:

1. The emphasis should be made at assessing a patient's preoperative status including the co-morbid.
2. Patients with multiple co-morbid are at a greater risk of in-patient mortality following an elective arthroplasty procedure.
3. The aim should be to bring the abnormal parameters of blood pressure and fasting blood sugar to normal ranges before proceeding with the surgery.

Keywords: Inpatient mortality, total hip replacement, total knee replacement

INSTITUTIONAL BASED FREQUENCY OF DIFFERENT TYPES OF NEOPLASIA OF FEMALE GENITAL TRACT

Principal Investigator: Zia Ullah

Co-Investigators: Sayyed Anas Shah, Salman Afridi, Arsalan Asfaq, Adeel Zaib Khan, Adil Hadeed, Aiman Waleed, Muhammad Ullah, Rashid Khan, Muhammad Ali, Inayat Khan, Tehsin Ihsan, Aneeq Khan.
Peshawar Medical College, Peshawar

Introduction:

Cancer is on rise globally. Cancer is the second leading cause of death globally and is estimated to account for 9.6 million deaths in 2018. Lung, prostate, colorectal, stomach and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervix and thyroid cancer are the most common among women.

Objectives:

1. To find out the frequency of different types of neoplasia of female genital tract.
2. To correlate age with type of neoplasia of female genital tract
3. To find out the geographical distribution of neoplasia of female genital tract

Methodology:

This is a retrospective study to determine frequencies of different gynecological neoplasia from 1st Jan. 2014 to 31 Dec. 2018. The data was collected through histopathological records of pathology lab of PMC and NWH. All relevant data was recorded and analyzed using the SPSS 19.0 software package. P-values for different variables were calculated using the Chi Square and Fisher Exact tests. P-value equal to or less than 0.05 was considered significant.

Results:

A total of 1039 female patient cases of all age group were included in this study. Uterus was the commonest organ affected (83.6%) followed by ovary (8.9%). While fallopian tube was least affected organ. Among the benign neoplasia leiomyoma was the commonest lesion followed by endometrial polyp. Endometrial carcinoma was the commonest among malignant neoplasms. There were 948 benign cases and 91 were malignant. The incidence of neoplasia was highest among age group of 41 to 50 and lowest among 20 and younger. We received more cases from Peshawar (33%). In which benign cases were 90.7% and malignant were 9.3%. The highest numbers of malignant cases were from Kabul 23.4 % followed by Dir upper 13.3%.

Conclusion:

It is concluded that leiomyoma was the most common benign tumor of female genital tract while Ovarian carcinoma was the most common malignant tumor.

Keywords: Neoplasia, Leiomyoma, Endometria, Carcinoma Polyps.

INVESTIGATION AND AWARENESS OF LIPID PROFILES, SERUM MAGNESIUM, HbA1C LEVEL IN DIABETIC AND NORMAL HEALTHY PERSONS

Principal Investigator :Ghazal Iftikhar

Co-Investigator: Madiha Muhammad Amin, Anum Muzaffar Sheikh, Arifa Muhammad Farooq

Faculty of Pharmacy, Jinnah University for Women, Karachi, Pakistan

Introduction :

Diabetes mellitus is a various group of ailments categorized by chronic promotion of glucose in the blood. It arises because the body is incapable to yield sufficient insulin for its own needs, either for the reason that of impaired insulin secretion, or both. Cholesterol is basic to standard wellbeing, yet when stages are excessively high, LDL cholesterol can be unsafe by method for adding to limited or blocked veins.

Objectives :

Diabetes Mellitus is most noticeable and the prevalent diseases in Pakistan. The point of this investigation was the awareness and estimation of glycosylated hemoglobin (HbA1C), serum magnesium and lipid profile in normal healthy persons and diabetic patients.

Methodology:

A cross-sectional investigation was directed in diverse age groups of Pakistani nationals i.e. 300 subjects, 100 diabetics not including complications (Set I), 100 diabetics with complications (Set II) and 100 usual normal healthy (Set III). Data was collected by personal interview with the participants using a pre-designed questionnaire.

Results:

In this survey Glucose, magnesium, HbA1C (%), cholesterol and triglyceride level were conducted in diabetic patients (39-56 of age), and awareness of DM were conducted (15 to above 25 of age). Patients having diabetes were 47.1%, among them 11.8% were type 2 diabetic and 5.1% having type1 DM. HbA1C results were in between 6.6% to 11.2%, awareness about the magnesium serum test were 29.30%, 21.4% patients have complications proteinuria and albuminuria, 7.1% have nephropathy, neuropathy and retinopathy. 40% have hypertension.

Conclusion:

The motivation behind this examination was to assemble data about the level of control of diabetes with improving knowledge and awareness of DM to better inform patients, families, and communities about this chronic disease in existing healthcare systems.

Keywords: Awareness, Survey, Questionnaires, patients, health care

Level of adherence to safe injection protocol among health care workers working in tertiary care teaching hospitals of Peshawar

Principal Investigator: **Tanzeela Rahim**

Co-investigators: Faiza Khanam, Zarafsha Ali, Taskeen, Nayab Aziz, Hajra Rehman, Anita, Sonila, Hira, Abida Riaz, Humaira Niaz.
Peshawar Medical College, Peshawar

Introduction:

Needle stick injuries (NSIs) pose a serious health issue for health care workers (HCWs) and the community at large. Needle stick injuries are responsible for the transmission of various blood borne viruses. The World Health Organization (WHO) reported that 3 million HCWs face exposure to blood-borne viruses via NSIs globally. To avoid perilous effects of unsafe injection practices among the populace and HCWs, WHO has introduced the concept of injection safety and provided guidelines for safe injection practice as well as pre and post prophylactic protocols.

Objectives:

1. To find out the healthcare providers adherence to safe injection protocols at public and private teaching hospitals of Peshawar and to find out existence of relationship between safe injection protocol availability and prevalence of NSI in that particular hospital.

Methodology:

A descriptive cross-sectional study was conducted at six tertiary care teaching hospitals of Peshawar. The HCWs (doctors & nurses) working in the hospitals were included while those at managerial post were excluded in our study. The data was collected via stratified random sampling technique for which a self-developed questionnaire and observation checklist based on WHO guidelines was used. The data was entered and analyzed in SPSS version 20.

Results:

A total of 273 participants were enrolled in this study of which 161(59%) were Nurses and 112(41%) Doctors. The availability of safe injection protocol in public and private hospitals was 46 % and 54%. The prevalence of NSIs in public hospitals was high (64%) as compared to private (36%). The odd of getting needle stick injury at public hospital is 2.1 greater than odds of private hospital. There were discrepancies among the practice and knowledge of the participants as the participants (73.3%) stated that they performed hand hygiene before touching every patient; however, on observation we found that only (29.2%) were following safety protocols.

Conclusion:

1. According to the HCWs they follow the safe injection protocol but on basis of observation the level of adherence was not satisfactory.

Keywords: Adherence, safe injection protocols, NSIs

LEVEL OF ANXIETY OF PARENTS REGARDING GENERAL ANAESTHESIA FOR DENTAL PROCEDURE OF THEIR CHILDREN

Principal Investigator: MEHREEN

Co-Investigator: AMNA SAEED

Peshawar Dental College, Peshawar

Introduction:

ANXIETY is defined as “state of apprehension resulting from the anticipation of threatening event or situation”. Despite the decline in dental caries in western world there remains certain population with high treatment need, such groups include some very young children for whom routine dental care is very difficult and these are often most appropriately treated under general anesthesia (GA).

Objectives:

1. To find out Parent’s level of anxiety regarding their children from General Anesthesia for dental procedures

Methodology:

A descriptive cross-sectional study was conducted at Department of Pediatric Dentistry in Peshawar Dental College and Khyber College of Dentistry during the month of January to February, 2020. A total of 130 parents participated in the study. Modified Coarrah’s Dental Anxiety Scale (MDAS) was used. Data was analyzed through SPSS version 20.

Results:

1. Total 130 parents participated in the study. There were 45% males and 55% females.
2. Among them 41% parents were extremely anxious when their child treated under general anesthesia. 27% parents were very anxious when they were in the waiting room while only 12% were anxious when accompanying their child for dental treatment under GA.
3. About 39% parents were not anxious when their child was treated with general anesthesia. There was no significant difference regarding gender and educational status of parents.

Conclusion:

Parents are extremely anxious when their child is treated under general anesthesia for dental procedure. There is a need to determine the reasons for this anxiety and the role of verbal and non-verbal communication should be identified in this regard from both clinical and supportive staff.

Keywords: Parents, anxiety, Anesthesia, General

MICROBIAL PATTERNS AND ANTIBIOTIC SUSCEPTIBILITY IN BLOOD CULTURES ISOLATED FROM PEDIATRICS WARD OF A TERTIARY CARE HOSPITAL

Principal Investigator: **Muhammad Sarfraz Khan,**

Co-investigator: Arslan Kareem, Areeb Khalid, Kiran Fatima, Hashim Khan, Waqar Younis,
Basit Ali Cheema, Hamza Naseer
Rawalpindi Medical University

Introduction:

Septicemia is a common cause of pediatric morbidity and mortality. The gold standard for diagnosis of septicemia is a positive blood culture.

Objectives:

1. This study aims at determining Microbial patterns and their susceptibility to alert clinicians to emerging pathogens that may pose threat to the community especially in children.

Methodology:

This retrospective cross-sectional study was conducted in the Department of Pathology and Microbiology, Holy Family Hospital, Rawalpindi, Pakistan, from April, 2019 to May, 2019. The culture was done on blood and MacConkey agar and was incubated at 37°C for 24 to 48 hours. Microbes were identified under a microscope by observing morphological characteristics after gram staining and applying biochemical tests. Antibiotic sensitivity pattern was done on Muller Hinton agar using the Kirby Bauer disk diffusion method.

Results:

1. Out of 423 blood cultures, 92 showed growth while 331 showed no growth. There were females and male.
2. The gram-positive bacteria accounted for 40 (43.84%) whereas gram negative bacteria covered the majority 51(55.43%).
3. Staph. Aureus (42.39%) was the most common, followed by Acinetobacter sp. (17.39%) and Pseudomonas aeruginosa (14.13%).
4. Actinobacteria sp. Showed 0% susceptibility to amikacin and cefotaxime.
5. All the isolates were 100% resistant to amoxycillin-clavulanic acid.
6. Staph aureus showed lower sensitivity for aztreonam (0%), ceftazidime (0%), clindamycin (66.67%), ciprofloxacin (0%), clarithromycin (11.76%) and ceftriaxone (0%).
7. igecycline showed 100% sensitivity for all isolates tested.

Conclusion:

Gram-negative bacteria form the majority of Isolates in our set up with Acinetobacter most common specie isolated. The resistance against Cephalosporins, Penicillin and Fluoroquinolones shown by Acinetobacter, Pseudomonas, Salmonella, and Klebsiella is of grave concern. Limited and objective use of antibiotic therapy is much needed strategy under new guidelines.

Keywords: Antibiotic Susceptibility, Holy Family Hospital, Microbial patterns

OUTCOME OF MINIMALLY INVASIVE PERCUTANEOUS PLATE OSTEOSYNTHESIS TECHNIQUE (MIPPO) IN THE TREATMENT OF EXTRA ARTICULAR DISTAL TIBIAL FRACTURES

Principal Investigator: Rihab Iftikhar

Co-Investigator: Saba Khan

Al-Nafees Medical College (ANMC)

Introduction :

MIPPO and intramedullary interlocking nail (IMLN) are effective methods for Extra-articular distal tibial fractures. MIPPO aims to reduce iatrogenic soft tissue injury and damage to bone vascularity, preserving the fracture hematoma.

Objectives :

1. To determine functional and radiological outcome of extra-articular distal tibial fractures treated with MIPPO.

Methodology:

This study was conducted from 1st January 2015 to 31st December 2017. It included patients with extra-articular type A distal tibial fracture in emergency with competent neurological and vascular status. Excluding open fractures, pathological fractures and immunocompromised. Patients were classified according to AO/OTA classification. Patients were treated with MIPPO using distal tibial medial locking plate and outcomes were assessed radiologically in terms of union and by using Ovadia-Beals scoring system.

Results:

57 patients were included. Mean age was 37. 45 patients were males, 12 were females. According to AO classification; 43A1 with 31 patients, 18 were in Type 43A2 and 8 in Type 43A3. 17 fractures healed within 16 weeks, 15 fractures within 19 and 22 fractures within 24. Three cases in which nonunion occurred. 41 patients had excellent, 8 had good, 5 had fair and 3 had poor outcome based on subjective result and 44 patients had excellent, 7 had good, 3 had fair and 3 had poor result based on objective result of Ovadia-Beals clinical scoring system.

Conclusion:

MIPPO using distal tibial medial locking plate is effective in achieving union and functional outcome. It preserves most of the osseous vascularity and fracture hematoma and provides a more biological repair.

Keywords: MIPPO, distal tibial fractures, medial distal tibial locking plate.

OUTCOME OF SUBTROCHANTERIC FEMUR FRACTURES TREATED BY PROXIMAL FEMORAL NAIL IN A TERTIARY CARE HOSPITAL

Principal Investigator: Omair Ashraf

Co-Investigators: Anum Humayun
Al Nafees Medical College, Isra University

Introduction :

Subtrochanteric fractures are the femoral fractures occurring below the lesser trochanter to 5 cm distal in the shaft of femur. These are some of the most challenging fractures that orthopedic surgeons have to face in routine practice. These fractures account for 10 to 35 % of all hip fractures. Internal fixation remains the best treatment for these fractures with the acceptance of complications like malunion, non union, implant failure, refracture and infection.

Objectives :

1. Determine the outcome of subtrochanteric fractures of femur treated with PFN using Modified Harris Hip score.

Methodology:

This prospective study was conducted from 1st July 2016 to 30th June 2018. The inclusion criteria were all the patients of both genders above 16 years of age presented to emergency department with the subtrochanteric fractures of the femur. Exclusion criteria included pathological fractures, fractures in children, old neglected fractures and multiple fractures. All the patients underwent internal fixation with PFN. Outcome of all patients were assessed using Modified Harris Hip Score.

Results:

1. A total of 60 patients were included in the study. Mean age of patients was 30.05 ± 8.59 years. 44 (73.3%) patients were males and 16(26.7%) were females.
2. According to Seinsheimers classification, we had 30 patients with type II fracture, 21 patients with type III fracture, 9 patients with type IV fracture. Mean duration of hospital stay was 06 days and mean time of full weight bearing was 12 weeks.
3. In our study, excellent results were found in 45 patients, good results in 08 patients, fair results in 03 patients and poor results in 02 patients. 02 patients were lost in follow up.
4. The mean Harris Hip score in our study was 93.5 which is higher than any other study. 06 patients had minor complications like superficial wound infection in our study. All the fractures unite and no implant failure in our study.

Conclusion:

1. PFN is a good choice implant for the fixation of subtrochanteric femur fractures leading to high rate of union, fewer implant related complications and excellent functional outcome.

Keywords: Sub-trochanteric Femur Fractures, Proximal Femoral Nail, Seinsheimers Classification.

PATIENT SAFETY CULTURE IN A SURGICAL UNIT OF TERTIARY CARE HOSPITAL

Principal Investigator: Afaq Ahmed

Co-Investigators: Ali Hasan, Arqam Miraj, Shehearyar Ahsan, Syed Usama, Hussain Aarsal
Fazaia Medical and Dental College, Islamabad.

Introduction :

Patient safety culture refers to overall behavior of staff based on a common set of beliefs and values that are aimed at reducing the opportunities for patient harm. There is a growing recognition of the need to develop hospital culture focused on patient safety to improve patient outcomes.

Objectives :

To explore the safety culture among doctors in the Department of General Surgery.

Methodology:

Study conducted in Pakistan Institute of Medical Sciences Islamabad. The design was Cross-Sectional study. Three months (July-SEPTEMBER). All Doctors working in the surgical department of PIMS having at least one-month experience in the department. A total of 104 Doctors participated in this survey. universal sampling

Results:

Overall positive response. Teamwork within units: 75.75%, Supervisor expectations and actions in promoting patient safety: 49.25%, Organizational learning from mistakes: 59.9%, Hospital Management support for patient safety: 35.7%, Overall perceptions of safety: 43.73%, Staffing: Overall positive score: 21.9%, Handoffs and Transitions: 33.6%, Non punitive response to errors: 58.6%, Feedback and communication about error: 38.3%, Communication Openness: 32.05%, Frequency of error reporting: 17.2%

Conclusion:

The PIMS General Surgery department is gradually improving the patient safety culture. Actions are taken retrospectively to rectify the errors and changes to improve patient safety are evaluated to check their effectiveness. There is positivity in teamwork in the unit especially when the patients admitted are high.

Key words: Safety Culture, Surgery, Perception

PATTERNS OF UPPER GASTROINTESTINAL TRACT INJURIES AND THEIR ASSOCIATION WITH STRICTURE FORMATION SECONDARY TO ACIDIC CORROSIVE INTAKE OBSERVED THROUGH ESOPHAGOGASTOMY

Principal Investigator: Muhammad Sarfraz Khan

*Co-Investigator: Areeb Khalid, Zubair Warraich, Waqar Younis, Hashim Khan
Rawalpindi Medical University, Rawalpindi*

Introduction :

In developing countries corrosive intake is a common health problem most commonly seen in children. It is of momentous medical-legal concern despite its perilous socio-economic effects.

Objectives :

1. To determine the distribution, extension and severity of injuries produced by the ingestion of caustic substances in the upper gastrointestinal tract.

Methodology:

It is a retro prospective descriptive study of patients who presented with history of corrosive intake to "Department of Endoscopy and Internal Medicine Benazir Bhutto Hospital, Rawalpindi" between 2013 and 2017. Total of 173 patients (56 males and 116 females) who underwent upper gastrointestinal endoscopy after corrosive intake. Results were assessed according to ZARGAR's classification. SPSS (Version-22) for windows was used for analysis through frequencies, percentages and cross tabulations.

Results:

Out of 173 cases 56(32.37%) were males and 117(67.63%) were females. Mean age was 25 years. In most cases (78.1%) OGD was performed within 24 hours. Endoscopy was carried out in 173 patients who came in Medical emergency. The endoscopic findings clearly showed grade 2a injury was common in upper 1/3rd, grade 2a in middle 1/3rd and grade 2b in lower 1/3rd of esophagus. Our retro prospective study showed that 23.1% (40 out of 173) had esophageal stricture which was common in patients suffering from grade 2b,3a injury of esophagus while 12.1% (21 out of 173) had stomach stricture with most of them suffering from grade 3a injury of pylorus. Severance of injury is correlated with occurrence of stricture.

Conclusion:

1. Acid ingestion is more common in third decade adults. the lower 1/3rd of esophagus is more frequently damaged while the lesser curvature and pylorus are mostly damaged in corrosive intake.
2. The greater the grade of injury greater are the chances to develop stricture(esophageal/gastric).

Keywords: Fiber Endoscopy, Benazir Bhutto Hospital (BBH), Corrosives Intake, Esophageal and Stomach Strictures.

PRESENTATION AND SOURCE OF REFERRAL OF SUBJECTS WITH DIABETIC RETINOPATHY.

Principal Investigator: **Nudrat Ihsan**

Pakistan Institute of Community Ophthalmology, Peshawar.

Introduction

Diabetic retinopathy (DR) is the major cause of visual impairment and blindness amongst diabetic patients worldwide. It is estimated that diabetic population will increase from 382 million in 2013 to 592 million in 2025. In comparison with other parts of the world the prevalence of diabetes in Pakistan in adult population ranges from 8.6% to 13.9%. Diabetic retinopathy is now the 5th leading cause of blindness worldwide and is the main cause of blindness in working population. Blindness due to diabetic retinopathy is preventable as progression can be halted by timely interventions if the disease is detected early in its course. Availing such data will help the diabetic care institutions, ophthalmologist and optometrist to plan evidence-based strategies in order to combat the enormous challenge of diabetes related blindness.

Objectives:

1. To evaluate the stages of diabetic retinopathy in diabetic patient at the time of presentation.
2. To evaluate the source of referral of diabetic patient.

Methodology:

A Cross Sectional study was conducted at department of ophthalmology HMC through Convenient sampling technique. Study Duration was 6 Months. All patients who were diagnosed as diabetics attending eye OPD for first time at HMC. Data was collected by using questionnaire after taking the consent from patients.

Results:

1. Total of 31 diabetic patients were included in this study, out of 31,
2. 16(41.6%) patients present with PDR,
3. 6(19.4%) with NPDR,
4. 4(12.9%) patients present with advance DR.
5. 18(58%) patients was referred by endocrinologist
6. 3(9.7%) were referred by general practitioners.

Conclusion:

1. Most of the patients were presented with late stage of DR.
2. It was interesting to find that most of the study cases presented because they were referred by endocrinology unit and very a smaller number of diabetic patients were referred by general practitioner.

Keywords: Diabetic retinopathy, Awareness of diabetic retinopathy, Diabetes mellitus, Diabetes related blindness.

PREVALENCE OF CELLPHONE VISION SYNDROME IN PRIVATE AND PUBLIC SECTOR MEDICAL & DENTAL STUDENTS OF KARACHI, PAKISTAN

Principal Investigator: Syeda Laraib Fayaz

*Co-Investigators: Muhammad Naveed Khan, Fatima Hasan, Sumaiya Aqeel, Aiman Iqbal
Hamdard College of Medicine and Dentistry*

Introduction :

Cell phone vision syndrome is also known as digital eye strain, it is a group of eye and vision disorders occurring due to prolonged usage of digital device like computer, cell phone, tablet and e-reader. The symptoms of cell phone vision syndrome are slow damage to vision, eye strain, headache, blurred vision, inability to focus, dry eyes and neck and shoulder pain.

Objectives :

1. The aim was to investigate the prevalence of cell phone vision syndrome in medical and dental students of Karachi.

Methodology:

This is a questionnaire-based study, in which the data had been collected from volunteer students of private and public sector medical & dental colleges of Karachi, Pakistan. The data was analyzed with SPSS version 22.

Results:

1. The study was conducted amongst 400 students with female: male ratio of 60.25: 39.75 (241:159). It showed that young undergraduates had been addicted to cell phone screens for a mean 5.8 years +/- 2.5 years duration. 72.5% (290) were using android phones.
2. The participants complained of headache 39.75% (159), eye strain 24.25% (97), neck & shoulder pain 36.0% (144) and other problems depending upon their duration of use of digital devices.

Conclusion:

1. The findings confirmed that many of the students were suffering from cell phone vision syndrome as many participants had blurry vision, wearing glasses and dry eyes.

Keywords: Cell phone vision syndrome vision, eye strain, headache, blurred vision

PREVALENCE OF COLOR VISION DEFICIENCIES IN LOW VISION PATIENTS

Principal Investigator: Fakhar Fatima
Al Nafees Medical college

Introduction :

Color blindness is a condition in which patients cannot perceive 1,2 or all of the basic colors.

Objectives :

1. To estimate the prevalence of color vision deficiencies in low vision patients.
2. To evaluate the types of color vision among patients with low vision.

Methodology:

This is descriptive cross-sectional study. Research was carried out in Al-Shifa Eye Hospital, Islamabad between September 2017 to December 2017. 332 patients with low vision were taken through convenient sampling who fit the inclusion criteria. Visual acuity of all the patients was measured using ETDRS chart at a distance of 4 meters. Then the color vision and contrast sensitivity test were done. SPSS version 17 is used for analysis.

Results:

1. According to my study, out of 332 patients, 51% are trichromate, while 28.60% of the population had red-green defect followed by a small proportion of blue yellow defect 9.60%.
2. A total of 332 respondents with different diseases were involved in this study. The prevalence of color vision deficiency was 51% in my present study.

Conclusions :

1. This study concluded that a total of 332 patients have been presented in the Low vision department. Out of which 229 are males and 103 are females.
2. Among all the patients taken for the data collection 51% had abnormal color vision. Within those 51% red green defect was found to be of high percentage that is 48.50%.

Keywords: Prevalence, Color Vision, Low vision.

PREVALENCE OF DEPRESSION AND SUICIDAL THOUGHTS AMONG STUDENTS OF FEDERAL MEDICAL AND DENTAL COLLEGE

Principal Investigator: Muhammad Haris Ramzan

Co-Investigator: Agha Syed Ali Haider Naqvi

Federal Medical and Dental College, Islamabad.

Introduction :

Medical colleges are known to be stressful environments for students because of their tough education and tight schedules. Many students have to leave their social life in order to cope up with their studies, so they have been believed to experience greater incidence of depression than others and suicidal ideation is becoming more common among them.

Objectives :

1. To examine the prevalence of depression and suicidal behavior among medical students of FM & DC based on their college and hostel life.

Methodology:

A cross sectional study was done on the 3rd, 4th and 5th year students of FM&DC. Students were assessed for depression with a slightly modified Beck Depression Inventory (BDI)". The answers were recorded and data was analyzed using statistical methods.

Results:

1. In the sample there were 62% females and 38% males.
2. As a whole 44.6% students were not suffering from depression.
3. Out of 55.4% depressed students, 36.1 % students had slight mood disturbances, 14.6 % students were moderately depressed and 5.7% students had critical depression.
4. Suicidal ideation was present among 11.8% students and all students with critical depression had suicidal thoughts and 2% students committed suicide attempt.
5. Also, the depression ratio among hostilities was greater as compared to day scholars.

Conclusion:

1. The results suggest that FM&DC students experience anxiety and depression along with suicidal thoughts among few students, the finding is consistent with other studies on this topic.
2. The study findings show that there is a need of psychiatric counselling, along with exploring the stressors leading to these outcomes and appropriate interventions.
3. Also, the factors leading to greater ratio of stress and depression among hostilities should be investigated and solved.

Key Words: Depression, Hostel Life, Medical Students, Suicidal Ideation.

PREVALENCE OF PAINFUL DIABETIC NEUROPATHY AND ASSOCIATED RISK FACTORS AMONG PATIENTS APPEARING AT DIABETIC CLINIC OF TERTIARY CARE HOSPITAL.

Principal Investigator: **Muhammad Sarfraz Khan**

Co-Investigator: Arslan Kareem, Areeb Khalid, Nadeem Iqbal, Basit Ali Cheema, Hamza Naseer, Rawalpindi Medical University

Introduction :

Neuropathy is one of the most common long-term complication of diabetes and is the main initiating factor leading to foot ulcer. Painful Diabetic neuropathy (PDN) can have significant effects on daily life activities

Objectives :

1. to determine the prevalence of PDN
2. and its associated risk factors among diabetic patients appearing at diabetic center of a tertiary care hospital.

Methodology:

It is a cross-sectional study done at the Diabetic Clinic Centre, Benazir Bhutto Hospital Rawalpindi. for diagnosis, a total of 150 diabetic patients were recruited. Data was collected by face to face interview using DN4 questionnaire (Douleur Neuropathies en 4 questions). For statistical analysis SPSS version 22 was used, taking significant value of 0.05.

Results:

The mean age was 53.9 ± 9.66 years [39-83]. The male to female ratio was 0.88. the mean body mass index (BMI) was 27.09 ± 12.8 . the majority 21(70%) were diabetes mellitus type 2 patients. The Prevalence of PDN was 21.5%. Female gender ($p=0.01$), duration of diabetes ($p=0.001$), obesity ($p=0.01$) were significantly associated with PDN, in addition to other diabetic co morbidities such as hypertension ($p=0.034$), retinopathy ($p=0.004$) and dyslipidemia ($p=0.003$).

Conclusion:

The prevalence of Painful diabetic neuropathy is very prevalent in our setup. PDN is significantly associated with diabetic co-morbidities. So, early therapeutic interventions and screening should be done in order to avoid later complications such as foot ulcers.

Keywords: Painful Diabetic neuropathy, Diabetes co-morbidities, DN4.

PROJECT CPAT "CARDIOPULMONARY ASSESSMENT TOOL"

Principal Investigator: Ahmad Yar Sukhera,

Co-investigator: Syma Ghayas.

Hamdard University, Karachi.

Introduction:

Diagnosis is the heart of the medical art; based on history taking and physical examination. It is what separates medicine as a definite, rational science from medical magic and superstition. Diagnosis is also the central, golden link in the chain of medical knowledge that brings together all its theoretical aspects to provide the practical key to treatment. Clinical examination of cardiovascular system not only central to contemporary technique but also ancient physician scientists like Avicenna was pioneer in taking history and performing vertex to toe examination of cardiovascular patient.

Objectives:

Our objective is to develop a Clinical History taking & Physical Examination Manual which contains.

- 1) The four methods of physical examination (inspection, palpation, percussion, and auscultation), including their philosophical justifications according to Avicenna and Hakeem Said also where and when to use them, their purposes, and the clinical findings they elicit.
- 2) The physiologic mechanisms that explain key findings in the history and physical exam justified under the light of traditional philosophy of "temperamentology".

Methodology:

Although many other hospitals and medical research centers across the world have also developed their own history taking manuals but our aim is to build a bridge between the modern medicine and Avicenna's & Hakeem said art of diseases diagnosis. So, we not just reviewed the modern books of clinical examination but also done a critical analysis of "Canon of medicine" by Avicenna and "Tajurbat a Tabib" by Hakeem Said Shaheed.

Results:

Each medical student wheatear he/she belongs to modern medical system or traditional medical system must recognize the essential contribution of a pertinent history and physical examination to the patient's care by continuously working to improve these skills.

Conclusions:

A good physician always endures to gain knowledge, either through observation or from experiments. But a great physician knows that philosophy is also necessary to make helpful generalization and to elucidate the phenomenon's in human body (little cosmos) which defy direct observation.

Keywords: History taking manual, Physical examination of cardiovascular system, Hakeem said insight, Avicenna cannon of medicine.

THE ROLE OF NEUTROPHILS TO LYMPHOCYTES RATIO IN THE DIAGNOSIS OF ACUTE APPENDECITIS

Principal Investigator: Hamza Javed

Ayub Medical College, Abbottabad

Introduction:

Appendicitis is one of the most common causes of acute abdomen and it is a surgical emergency. Therefore, its immediate diagnosis and surgery are of immense significance for the disease itself and its surgery carry a potential risk of morbidity and mortality. The goal of this study is to find out the diagnostic role of Neutrophils to Lymphocyte Ratio in acute appendicitis.

Objectives:

1. To determine the role of Neutrophils to Lymphocytes ration in diagnosis of Acute Appendicitis.

Methodology:

It is a cross-sectional study on 100 patients admitted to the surgical wards of Ayub Teaching Hospital Abbottabad from 15th Jan till 15th March 2019, with suspicion of Acute Appendicitis, who subsequently underwent open appendectomy. Data was collected regarding the demography of the patient, history, clinical examination and investigations including the complete blood count, from which the Neutrophils to Lymphocytes Ratio value was calculated. Histopathology results of the appendix specimen were taken as gold standard for the diagnosis of acute appendicitis. Data was analyzed on SPSS version 16.0

Results

3. Out of the 100 patients included in this study, 55 (59.78 %) males and 37 (40.22 %) females had histopathology confirmed Acute Appendicitis making male to female ratio of 1.49:1.
4. Acute Appendicitis is disease of young adults with a Mean age of 23.84 ± 10.30 years.
5. Clinical presentation varies with only constant feature of migratory pain in RIQ of abdomen.
6. There is a strong relationship between Neutrophils to Lymphocytes Ratio and Acute Appendicitis ($P=0.001$).
7. The sensitivity is 70.65 % while the specificity is 87.5 % and accuracy is 72. %.

Conclusion

There is a strong relationship between Neutrophils to Lymphocytes Ratio value and Acute Appendicitis. According to the results of our study, Neutrophils to Lymphocytes Ratio value of ≥ 2.5 seems to be a reliable parameter to obtain a more certain diagnosis of AA.

Keywords: Neutrophils to Lymphocytes Ratio, Acute Appendicitis, Acute Abdomen

SEVERE HYPONATREMIA FOLLOWING CYSTOSCOPY AND DILATION- AN UNUSUALLY LATE MANIFESTATION: CASE REPORT AND REVIEW OF LITERATURE

Principal Investigator: Mir Ibrahim Sajid

Co-investigators: Shanila Ahmed, Noman Ali, Sajid Abaidullah
Aga Khan University, Karachi

Introduction:

Several surgical procedures such as cystoscopy, use non-conductive irrigation fluid such as mannitol, sorbitol and glycine to enable vision during treatment in body cavities. However, their use has been attributed with hyponatremia, which can present as neurological symptoms such as confusion.

Objectives:

1. To present an unusual manifestation and outcome following cystoscopy and help in early recognition and prompt management of such cases.

Methodology:

This is a case report giving an unusual presentation after cystoscopy and its subsequent management.

Results:

We report the case of a fifty-year-old female who was received in a drowsy condition at our center with a Glasgow-Coma Scale (GCS) of 3/15. She had undergone a cystoscopy procedure for removal of urethral strictures ten days back. Her BMP revealed severe hyponatremia with serum sodium levels of 104 meq/L. Consequently, she was intubated and started on IV normal and hypertonic saline to correct volume depletion and hyponatremia. The patient was extubated after 48 hours and was discharged in normal condition.

Conclusion:

1. Even though hyponatremia is an acute presentation of endoscopic urology procedures, but as evident from our case report, late manifestation can result which requires timely recognition and prompt management.

Keywords: Late-onset hyponatremia, cystoscopy, non-conductive irrigation

The Efficacy of Vitamin-D supplementation in patients who have chronic lower back pain

Principal Investigator: Zahra Jabeen Naqvi

Co-investigator: Zoila Shah

Al Nafees Medical College

Introduction:

Evaluate the usefulness of supplementing Vitamin D and measurement of pain intensity and functional disability.

Objectives:

1. To determine the efficacy of vitamin-D supplementation in patients with chronic lower back pain.

Methodology:

Prospective cohort study was conducted from 20th March 2015 to 19th March 2017. Inclusion criteria included patients of CLBP aged between 15 to 55 years. Exclusion criteria included patients with disc prolapse, spinal stenosis, neurological signs, metabolic bone disease and chronic disease of kidney and liver. Patients were supplemented with 50,000 IU oral vitamin-D3 every week for 8 weeks and 50,000 IU oral vitamin-D3 once monthly for 6 months. Pain intensity and functional disability were measured by VAS and Modified Oswestry disability questionnaire (MODQ) scores at baseline, 2, 3- and 6-months post-supplementation along with vitamin-D3 levels.

Results:

1. Study includes 600 patients with mean age of 44.21 ± 11.92 years. 337(56.17%) male and 263(43.83%) females.
2. 454(75.66%) patients have deficient vitamin-D3 levels. Baseline mean vitamin-D3 levels were 13.32 ± 6.10 ng/mL and increased to 37.18 ± 11.72 post supplementation ($P < 0.01$).
3. 299 (66%) patients attained normal levels (>29 ng/mL) post supplementation.
4. Reduction in VAS was observed at 2, 3, and 6 months (61, 45, 36) as compared to 81 at baseline ($P = 0.001$).
5. Improvement in the functional ability was also observed at 2, 3, and 6 months (35, 30 and 25) as compared to baseline 46 ($P = 0.001$).

Conclusions:

6. Vitamin-D supplementation may lead to improvement in pain intensity and functional ability.

Keywords: CLBP, VAS Score, MODQ Score

THE PREVALENCE OF INCIDENTALLY DETECTED UROLITHIASIS IN SUBJECTS UNDERGOING COMPUTERIZED TOMOGRAPHY

Principal Investigator: Sajeel Saeed

Co-Investigator: Ansar Ullah, Jawad Ahmed, Sidra Hamid

Rawalpindi Medical University, Department of Physiology

Introduction:

Multiple researches have shown that urolithiasis is one of the most common incidental findings in medical imaging. These stones are potentially dangerous and can cause severe impairment to renal function if not diagnosed for a long time.

Objectives:

1. The objective of this study was to determine the prevalence of incidentally detected urolithiasis in patients undergoing abdominopelvic CT scan.

Methodology:

A cross-sectional study was conducted on 721 patients selected by consecutive non-randomized sampling technique. Patients undergoing an abdominopelvic CT scan in radiology department of Holy Family Hospital (HFH) were included in the study.

Results:

A total of 721 patients underwent abdominopelvic CT scan during the four months from July 2019 to October 2019. Out of these 336(46.6%) were male and 385(53.4%) were females. Incidental stones were found in 20 out of the total 721 patients. Among these 20 patients 11 were male and 9 were female.

Conclusion:

1. The prevalence of incidentally detected urolithiasis was found to be 2.8% in this study. Its frequency was found much higher in males (3.27%) as compared to females (2.33).
2. As about 77% of these stones with no clinical manifestations show disease progression, a regular screening method should be devised for detection of such stones before they cause any remarkable damage to renal function.

Keywords: Urolithiasis, Computerized tomography, calculi, kidney stones

THE ROLE OF LIFESTYLE FACTORS IN THE MANAGEMENT OF DIABETES MELLITUS TYPE II

Principal Investigator : Azka Akbar

*Co-investigators: Mariam Mansoor, Mairah Sohail, Khadija tul Zahra, Iqra Attique,
Javeria Khalid, Juwayria Omar, Samira Khurram
Fazaia Medical College*

Introduction :

Global statistics show Pakistan to be 8th in the world in terms of highest diabetes prevalence. The prevalence of type 2 diabetes mellitus in Pakistan is 16.98. The prevalence is higher in males than females and more common in urban areas.

Objectives :

1. To assess the impact of lifestyle factors on the management of DM.
2. To assess cost effective approaches in the management of DM.

Methodology:

The study design is analytical cross-sectional. The study was conducted on known diabetics having type 2 diabetes age 20 years and above. The data was collected using questionnaires from two different hospitals namely PAF unit 1/unit2 and PIMS. Sample size is 130 individuals, both males and females. The data is analyzed using SPSS version 23 and for descriptive analysis, means, percentages, frequencies and standard deviation are used. For inferential statistics cross tabulation is done and significance of lifestyle factors in control of DM is seen with chi square test.

Results:

1. The chi square test was run on exercise frequency, vegetable intake, fruit intake and level of stress which had the following p values, less than 0.5: 0.004, 0.053, 0.008, 0.021 respectively showing a positive and significant correlation between healthy lifestyle and management diabetes mellitus type II.

Conclusion:

1. Our study concludes that a healthy lifestyle indeed has an irrefutable role in management of Diabetes Mellitus.

Keywords: Lifestyle factors, Management, Diabetes mellitus, Smoking, Diet

WOUND HEALING POTENTIAL OF NEW FORMULATION WH367006 COMPARED TO STANDARD THERAPEUTIC AGENTS

Principal investigator: **Muhammad Idrees Almani**

Co-investigators: Mohammad Saad Nouman, Syed Muhammad Minhal Zaidi, Rubab, Tayyaba
Rehman, Asma Rasool,
Hamdard University, Karachi

Introduction :

Calendula officinalis known as pot marigold is used in medical conditions. Its hydro-alcoholic extract has been approved as an antiseptic and wound healing medicine by FDA.

Objectives :

1. Purpose of the study is to evaluate the wound healing potential of a new formulation, WH367006 with Calendula mother tincture and bacitracin-polymyxin ointment.

Methodology:

Ointment containing calendula mother tincture as an active was prepared through "mixing by trituration" method. The wound healing effect was evaluated on rabbits of local breed that were grouped by simple random sampling in tincture, ointment and formulation groups. An incision of one inch was made on the left thigh of all the animals and after three days, treatment was started. Data was analyzed statistically using SPSS 22 by two-way ANOVA. Results were considered significant when $p < 0.05$.

Results:

1. With respect to wound closure the significant effect was observed ($F = 25.35, 39 (2, 12) p < 0.005$) where tincture > ointment > formulation.
2. Inversely, the formulation showed better hair growth capacity ($F = 3.36, 39 (2, 12) p < 0.005$) than the ointment and tincture respectively.
3. The tissue regeneration effect of the ointment and tincture was found equal ($F = 21.37, 39 (2, 12) p < 0.005$) while both showed greater effect than the formulation.

Conclusion:

1. The wound healing activity of formulation (WH367006) showed promising results when compared with the standard ointment and tincture.
2. The formulation was found to promote wound healing along with hair growth. Further research is in continuation.

Keywords: Wound healing, Calendula, Polymyxin, Bacitracin

PUBLIC HEALTH AND SOCIAL SCIENCES

AUTISM SPECTRUM DISORDER: EXPERIENCES AND BEHAVIOR OF PARENTS WHEN RAISING A CHILD WITH AUTISM

Principal Investigator: M. Talha Ejaz

*Co-Investigators: Tooba Ehtisham, Rabiqa Pervez,
Hamdard college of medicine and dentistry, Karachi*

Introduction :

Autism Spectrum Disorder (ASD) refers to a range of conditions characterized by some degree of impaired social behavior, communication, language and activities that are unique to the individual and carried out repetitively.

Objectives :

1. To identify the behavior and experiences of parents when raising the child with Autistic Spectrum Disorder.

Methodology:

A cross sectional study was done during March till September 2019 among parents of children having autism. A pre-tested and validated AFEQ questionnaire was administered to parents who are attending training sessions at ASDWT. The questionnaire was designed to assess the experience of parents, quality of family life, child development, understanding and social relationships and child Symptoms. Descriptive statistics was used to calculate mean and standard deviation of AFEQ score and its subscales using SPSS version 22.

Results:

1. Total 50 parents were interviewed. Among children, 45 (90.0%) were male and 5 (10.0%) female. The mean age of children was 6.8 ± 3 years and the mean age at diagnosis with ASD is 5.4 ± 2.9 years.
2. The majority of the parents 30 (60.0%) stated that their family life is a struggle, however 23 (46.0%) are confident about understanding of a child's level of development and 28 (36.0%) parents stated that always their child is happy.

Conclusion:

1. The study revealed that the experience of parents having a child with autism is found to be more positive.
2. However, the psychological distress, acceptance of the diagnosis and its permanent situation remains a greater challenge for parents when raising a child with autism spectrum disorder.

Keywords: Autism Spectrum Disorder, Child, Parents.

A COMPARATIVE STUDY OF RELUCTANCE AMONG LITERATE AND ILLITERATE TOWARDS POLIO VACCINATION CONDUCTED IN KUWAIT TEACHING HOSPITAL, PESHAWAR

Principal investigator: **Uzma Akbar**

Co-Investigators: Fatima Arif, Hajra Ameer Khan, Gul Warin, Maleeha Shamroz, Aimen Jehangir Khan
Peshawar Medical College.

Introduction :

Poliomyelitis, a lifelong crippling disease is unfortunately still prevalent in Pakistan mainly in KPK and FATA. This is because of disinclination shown by people towards polio vaccination. According to past research, reasons include, inaccessibility to remote, rural areas, religious beliefs, people not aware of the severity of the disease and misconceptions about the polio vaccine. This study is designed to find out the level and reasons of reluctance among literate and illiterate in Peshawar.

Objectives :

1. To find out the frequency and level of reluctance in illiterate and literate.
2. To determine reasons for not vaccinating among literate and illiterate.

Methodology:

This is a hospital based descriptive, cross sectional survey conducted in OPD(Paediatrics) of Kuwait Teaching Hospital for one month. A convenient sample of 100 participants was taken and their knowledge and attitude towards polio vaccination was assessed by using a self-administered questionnaire. Frequency of reluctance among literate and illiterate and a comparison of reasons is made based on quantitative data.

Results:

1. 13 out 100 participants showed reluctance towards polio immunization including 9 literates and 4 illiterates.
2. Among 9 literates, 4 have good knowledge of polio and are aware of its consequences but still reluctant whereas 5 have poor knowledge of polio and are unaware and reluctant.
3. Among the illiterate who display a negative attitude towards polio vaccination, 2 are aware and 2 unaware of its consequences and thus show reluctance.

Conclusions :

1. This study shows why despite so many efforts of national and international organizations, polio has not been eradicated from Pakistan.
2. The major barriers being religious beliefs, fear of side effects, lack of trust on the quality of vaccine, thinking that vaccination is not necessary and that the vaccines cause infertility.
3. Thus, there is a need to convince people and clear all their misconceptions regarding polio vaccination.

Keywords: Poliomyelitis, Reluctance, literate, illiterate.

A CROSS SECTIONAL ANALYSIS OF KNOWLEDGE, ATTITUDE AND PRACTICES ABOUT RABIES AMONG GENERAL POPULATION IN KARACHI, PAKISTAN

Principal Investigator: Tooba Ramzan

Co-Investigators: Saman Sarfaraz, Kainat Nasruddin, Haleema Sadia, Safila Naveed
Faculty of Pharmacy, Jinnah University for Women

Introduction :

Rabies is an infectious viral zoonotic disease which directly affects the CNS of animal or infected human and is spread through saliva or scratch of rabid animal. When symptoms appear it's too late to save the life of an infected patient. By U.S research, animals like bats, foxes, dogs, cats and other wild animals can be the source of transmitting rabies. Now a days, population of street dogs is increasing at its peak and a lot of people are being bitten by street dogs, because no one knows that animal who bites a person is rabid or not, that's why seeking medical help immediately and get vaccinated is the only way to be protected against rabies because there is no cure for rabies.

Objectives :

1. to aware the general citizens about rabies prevention, pet vaccination
2. and to complain against the increasing population of street dogs in Karachi.

Methodology:

The KAP study was conducted among 500 general citizens in the territory of Karachi, Pakistan, after making questionnaires.

Results:

he results of this study reveals that, from 500 respondents; 74.5% were females, 69.6% were within the age of 18-25 years, 70% had some knowledge of rabies while they don't know about treatment, 20.6% have been bitten by street dogs, very less have done home management, 14.7% have vaccinated their pets, 45% peoples were agree in building shelter homes for street animals.

Conclusion:

Study reveals that pet vaccination and prevention regarding rabies and building shelter homes for street dogs will reduce the risk of rabies.

Key words: Rabies, Rabid animal, zoonotic disease, Karachi, knowledge, attitude, practice.

AIR POLLUTION: A CONTRIBUTING FACTOR TO GLUCOSE INTOLERANCE

Principal Investigator: **Tooba Tahir**

Co-Investigators: Radia Sehar, Warisha Munim, Sheza Maryem Kalim, Tehreem Hasan.
Faculty of Pharmacy and Pharmaceutical Sciences, University of Karachi

Introduction

Diabetes Mellitus is one of the most prevalent medical conditions which can be due to several causes which comprises of external and internal factors. Air pollution can have deadliest consequence on human health-giving rise to majority of diseases.

Objectives

1. This research study has been conducted to bring under consideration an important trigger of glucose intolerance in Karachi population.

Methodology:

We conducted a cross-sectional analysis for N=50 suffering from diabetes mellitus out of which 20 were female and 30 were male. We evaluated the presence of air pollution in different areas of Karachi city and obtained an immense response showing the complicity of diabetes conditions.

Results:

1. Our results showed that 30% of the patients were residing in the polluted areas like Gulshan-e-Iqbal 22%, F.B area 10%, North Karachi 6%.
2. According to the survey it was observed that most of the population were not aware about the hazards of air pollution which involves in the prevalence of glucose intolerance.

Conclusion:

1. According to our cross-sectional data 30% individuals belonging to more polluted areas had diabetes mellitus majority of which suffered from type II diabetes; this showed association of air pollution with impaired glucose tolerance.
2. 22% people lived in Gulshan-e-Iqbal which was categorized as most polluted area in terms of smoke emitted from vehicles, burning of garbage and other factors.

Keywords: Air pollution, smoke, glucose, health

AMBIENT AIR AND NOISE POLLUTION MONITORING IN HAZARA DIVISION

Principal Investigator: Saifullah Khan

*Co-Investigators: Zaboor, Ijlal, Omar, Umer and Shahbaz
Ayub Medical College, Abbottabad*

Introduction:

Pakistan is facing population boom during the last two decades, which is causing an extensive escalation in urbanization, transportation, industrialization and energy consumption. As a result, a substantial increase in the emission sources of various noise and air pollutants has taken place. The rapid and necessary development of urban cities along with lack of air quality and noise level monitoring and management system, thereby give rise to poor health planning and management system.

Objectives:

1. To determine the exposure level of noise and air pollutants in selected industries, traffic place, residential and recreational area in three major cities of Hazara division.
2. To identify the points of highest polluted areas.
3. To encourage concerned authorities to take necessary action.

Methodology:

A descriptive cross-sectional survey-based study was carried in three medium size cities of hazara division Abbottabad, Manshera and Haripur from November 2018 to august 2019. The monitoring sites consist the blend of industrial, commercial, residential and heavy traffic roads with thick population trend. These monitoring sites were selected on the basses of stratified randomized sampling. Major air pollutant analyzed were PM 2.5 and PM 10 and noise level were measured in decibel. The reading was taken for an average of 10 minutes in pre tourist, tourist and in rainy season with sensitive calibrated tools.

Results:

1. Major air pollutant analyzed were PM 2.5 and PM 10.and AQI was calculated. AQI observed at intersection was around 75 which is far beyond the recommended range of 50.
2. Similarly, AQI at recreational, residential and industrial area are around 80,70 and 113 respectively exceeding the recommended range of 50.
3. The noise measurement at intersection was observed at 77 dB which is pretty much in range of recommended 85 dB similarly noise level at recreational, residential and industrial were found around 60,55 and 85 respectively, which were in recommended range for recreational and residential levels at 55 to 60 dB but far exceed the recommended level for industrial zone listing 75 dB.

Conclusion:

1. The present state of air quality and noise level requires an immediate establishment of continuous monitoring systems, improvement of emission control technologies and implementation of noise and air quality standards and guidelines.

Keywords: dB=Decibel, PM=Particulate Matter, AQI=Air Quality Index.

ASSESSING THE STATE OF HEALTH AMONG UNDERGRADUATES OF RAWALPINDI & ISLAMABAD

Principal Investigator: Sibghatullah Asif

*Co-Investigators: Azim Hashmi, Navyan Ayub, Waseem Javed, Muhammad Usman
Islamic International Medical College Rawalpindi*

Introduction:

Studies have suggested that despite an abundance of knowledge in recent times, the prevalence of unhealthy lifestyle in Undergraduates is increasing and is often associated with non-communicable diseases. Risk Factors that lead to Lifestyle diseases are Bad Eating Habits, Physical Inactivity, Smoking, Use of Alcohol and Mental Stress. There is a need to establish a precedent in determining the health status of the undergraduate community and correlating these factors.

Objectives:

1. To determine frequency of Unhealthy Lifestyle among Undergraduates.
2. To determine the Major Indicators of Unhealthy Lifestyle.

Methodology:

Cross-sectional descriptive study was carried out in 24 Universities of Islamabad and Rawalpindi in November 2019. The sample size was 423. RaoSoft Sampling was used for sample selection. With informed verbal consent, a validated questionnaire was used to collect the data which was analyzed on SPSS version 21 and Microsoft Excel.

Results:

1. With SLIQ scoring, sample of 35% Males & 65% Females revealed that 57% of the population lie in intermediate diet category, 42% are living sedentary lifestyle due to lack of exercise.
2. 100% of the population was having no alcohol consumption.
3. 89% of the population is non-smoker while 59% of the population is stressed.
4. Over 77% of the studied population is living an Intermediate Lifestyle.

Conclusion:

1. There is an intermediately healthy lifestyle seen among the undergraduate students of Rawalpindi & Islamabad.
2. Major indicators for good health in study samples are abstinence from alcohol and smoking while indicators for unhealthy lifestyle in the sample population is unhealthy dietary patterns, lack of physical activity and stress.

Keywords: Health, Lifestyle, Undergraduates

ASSESSMENT OF EARLY CHILDHOOD CARIES AND IT'S RELATIONSHIP WITH FEEDING PRACTICES

Principal Investigator: **Meena Mayan**

Co-investigator: Laraib Shah

Khyber College of Dentistry, Peshawar

Introduction:

Early childhood caries remains a problem in both developed and developing countries and has been considered to be in an epidemic proportion in developing countries.

Objectives:

The aim of this study was to assess the prevalence of early childhood caries and its relationship with feeding practices.

Methodology:

It was carried out in Khyber College of Dentistry Hospital. It was spread over a period of three months. This was a cross sectional analytical study and children of 2-6 years old formed the study group. Sample size was 194 children and sampling technique was convenience purposive. Children were examined on dental unit by the principal author and caries were detected using dft index. A parent or care giver, after taking informed consent, was asked to complete a self-designed questionnaire regarding information about child's pattern of feeding, mother education level, socioeconomic status, age of starting brushing, having snack between meals and dft status.

Results:

The study showed prevalence of ECC was 55.2%. In this study breast fed children were 84 % and bottle fed were 16%. Percentage of ECC in breast fed were 51.6%, which was less than the percentage of ECC in bottle fed children, which was 72.25%. Those children who took bottle at night time had more caries as compared to those who did not. Caries in children was 89% who took milk with sugar at night as compared to those who did not. Incidence of caries was more in the children of illiterate mothers 56% than those of educated mothers 10%.

Conclusion:

This study documented high prevalence of ECC among 2-6 years old children. Prevalence of ECC was more in bottle fed children specially in those children who were given milk with sugar in bottle at night. Results reveal an urgent need of increased awareness among public about ECC and their attitude towards the importance of primary teeth. This is high time to institute preventive strategies to control ECC.

Keywords: caries, feeding practice, dentistry

ASSESSMENT OF NUTRITIONAL STATUS IN CHILDREN ATTENDING GOVERNMENT SCHOOLS IN ISLAMABAD

Principal Investigator: **Muhammad Irtiza,**

Co-Investigators: Abdullah Asad, Luqman Nasir, Khudaye Noor, Amna Ahmad, Anum Hussain

Bibi, Huma Mustehsan

Fazaia Medical College, Islamabad

Introduction :

Child malnutrition is a major public health problem in most of the poor communities leading to high morbidity and mortality. The present study focuses on different socioeconomic factors which have an impact on nutritional status of the children.

Objectives :

Aim of the study was to assess the nutritional status of children attending government schools in Islamabad

Methodology:

It was a cross sectional study conducted at a government school of Islamabad to assess nutritional status of children aged 6-12 years. Simple random sampling was applied to collect the sample. BMI and Height for age were used to assess the nutritional status of children.

Results:

The number of underweight and stunted children among illiterate guardians was high as compared to those children who had guardians having higher education. Half of the children who were stunted were appearing to be healthy on BMI scale for children. Poverty and low literacy rate of mother appeared to be important underlying factors responsible for poor nutritional status of children.

Conclusion:

Shorter heights of children may mask their poor nutritional status and rule them out as healthy on BMI scale for children. Economic, political and social changes should be made with special focus on mothers' education to improve the nutritional status of children

Keywords:

BMI, Nutritional status, Government schools, socio-economic status

ASSESSMENT OF PATIENT AWARENESS OF THEIR RIGHTS IN PESHAWAR: A CROSS-SECTIONAL, COMPARATIVE STUDY OF PRIVATE AND GOVERNMENTAL HOSPITALS

Principal Investigator: Zunaira Arbab

Co-Investigators: Zaira Anmol, Fatima Tul Zuhra, Kainat Sheikh, Tarannum Parvez, Haney Gul, Sardar Remsha Irshad, Ramine Baig, Khadija Mustafa, Sara Habib, Iffat Bint e Ubaid, Leena Mohammad, Hira Bibi Yusafzai, Maria, Haya Khaleeq, Malke-e-Saba Shah
Khyber Girls Medical College

Introduction:

Pakistan is one of the under developing countries where there is lack of legal framework involving health services. Though there are objectives in PMC for patients' rights, there are lack of enforcement and lack of knowledge among our community.

Objectives:

1. The aim of the study was to assess the patient's awareness of rights in private and public hospitals
2. and also, to determine the difference of patients' awareness on the basis of education level and priority of the hospital.

Methodology:

A cross-sectional comparative study was conducted in Peshawar for 15 days. Non-probability convenience sampling and Pre-validated questionnaire was used. SPSS version 20; Mean, SD computed for continuous data; Percentages calculated for categorical data; Chi squared for comparison.

Results:

1. We collected data from 42.1% Females and 57.9% Males in both HMC and RMI.
2. The mean age for patients was 37.25.
3. Our response rate from the private hospital was 28.7% and 71.3% from government hospital.
4. For 13 questions, the results were statistically significant.
5. The level of education among those that went to the private hospital as compared to government, was very striking (significance of 0.004).
6. There was also a major difference in patient's knowledge of consent among the two hospitals (0.001), knowledge of the right to privacy (0.005), of refusal of treatment (0.021).

Conclusion:

1. We discovered that there are a few rights in particular that our patients seem to be unaware of, especially in HMC.
2. Based on our research, we believe the government needs to allocate resources to educating patients on patient rights.
3. As a majority of our population goes to government hospitals, it is imperative that public service announcements are focused there.

Keywords: Patient awareness; Patient rights; Confidentiality; Health rights

ASSESSMENT OF THE NUTRITIONAL STATUS OF STUDENTS LIVING AWAY FROM HOME

Principal Investigator: Jaffar Ali Haque

Co-Investigators: Muhammad Arsalan Naseer, Khadija Leghari, Eesha Iftikhar, Badshah Gul Khan, Abdullah Akbar, Adnan Yusuf, Mahwish Akhtar, Rukhsana Khan
Fazaia Medical College

Introduction:

Poor dietary habits among undergraduate students especially Hostel Residential students have been reported as a lifestyle challenge, they face while in school. This study was carried out to assess the dietary pattern and nutritional status of undergraduate students.

Objectives:

1. To compare dietary pattern of hostel & non -hostel residents

Methodology:

A comparative, descriptive study. Study population consisted of 200 undergraduate students. Data was collected using structured self-administered questionnaires and anthropometric measurements were obtained. Data was analyzed using SPSS.

Results:

1. Mean age of respondents was 21.5 ± 2.4 years, with a higher proportion being Hostellite (95 Day scholars and 105 Hostellite).
2. About 58 (61.1%) claimed to have breakfast everyday however only 38 (36.2%) of Hostellite were reported to have had daily breakfast.
3. While Hostellite eat 70% from hostel-mess and 30% outside.
4. Day scholars shows involvement in the daily physical activity and relatively equal number of them falls in every category.
5. While in Hostellite, larger percentage falls in no or a little physical activity.

Conclusion:

Junk Food, lack of exercise and skipping essential nutrients in meals are common among 'Hostel Residential Students. Regular nutrition education program by the institution with emphasis on adequate dietary practices, improving hostel messing and exercise programs is recommended.

Keywords: Nutritional status, dietary pattern, physical activity, hostel residents

AWARENESS AND KNOWLEDGE REGARDING TRISOMY 21 AMONG PARENTS OF SCHOOL GOING DOWN SYNDROMES IN ISLAMABAD AND RAWALPINDI

Principal Investigator: Ibtesam-e-Fajar

Al Nafees Medical College, Isra University Islamabad campus

Introduction:

Down syndrome or trisomy 21, is mostly associated with characteristic facial features, delayed physical growth and mild to moderate intellectual disability with co-morbidities. Not many people are well aware of facts related to down syndromes.

Objectives:

1. To identify the level of awareness and knowledge among parents of school going down syndrome.

Methodology:

A descriptive cross-sectional survey (designed after literature search) conducted at special children schools in Islamabad and Rawalpindi, from the parents of selected down syndrome that fulfill the inclusion criteria i.e. school going down syndromes and residents of Islamabad and Rawalpindi, in an interactive counselling session conducted by authors in collaboration with pediatrician, keeping the questionnaire anonymous. After data collection it was entered in SPSS v25 for statistical analysis in terms of frequencies and percentages.

Results:

1. Out of 44 parents 93% (n=41) were well aware that down syndromes are slow learners but only 50% (n=22) agreed that their child is also slow learner.
2. About 81% (n=36) knew that it's a genetic disorder.
3. 88% (n=39) said down syndromes have long life span. 29% (n=13) parents think that it is a treatable disease.
4. Only 5% (n=3) parents said they were informed before birth that their child has down syndrome. 10% (n=6) parents knew about the pre-natal screening, 60% parents were aware of the physical characteristics of down syndromes and can correlate those with their child.

Conclusion:

1. Our selected candidates are mostly well aware of this condition but there is still the need for spreading further awareness to overcome the problems faced by the child and for their better management.

Keywords: Awareness, Down Syndrome, communication

AWARENESS OF HEALTH-RELATED OCCUPATIONAL HAZARDS AND USE OF PERSONAL PROTECTIVE EQUIPMENT BY WELDERS OF KARACHI.

*Principal Investigator: **Abdullah Kaleem uddin***

*Co-Investigator: Fahim Raza, Ravi Shankar, Syed Wajahat, Taha Ahmed, Pasban Ahmed.
Hamdard College of Medicine and Dentistry, Hamdard University*

Introduction:

Welding is an overlooked occupation with considerable morbidity, followed by the fact that it is a source of income of a significant number of families. Welders use gas flame, electric arc and other sources of heat to melt and cut or fuse metals which cause external injuries and internal diseases. Very few studies have been conducted to assess the pattern of injuries and diseases and no published data is present to give us the idea about the magnitude of problem in this vulnerable group in Karachi.

Objectives:

1. To assess the knowledge of occupational hazards and its related complaints and finding out the safety practices among welders of Karachi.

Methodology:

Cross-sectional study done on 352 welders in Karachi using structured interview questionnaire. Information was sought and analyzed using IBM-SPSS-22. All ethical issues were taken into consideration.

Results:

1. All welders were males with ages between 14-70 years. Overall, 33.5% denied of having any risk to their health in welding profession. The most common injuries sustained were arc eye injury (78.9%), foreign body in the eye (58.3%), cut/damages to the hands (84.9%) and burns (80,9%).
2. The majority (85.5%) respondents did not have any specialized training regarding their work.
3. All the participants used at least one safety equipment during welding.

Conclusion:

1. The study indicates deficiencies in knowledge and practices of occupational health and safety among Karachi welders.

Keywords: Safety, Occupational, Health, welding, Occupational medicine.

CARDIOVASCULAR DISEASE AND DIABETES RISK SCORE AMONG UNDERGRADUATE MEDICAL STUDENTS IN KHYBER PAKHTUNKHWA: A CROSS-SECTIONAL SURVEY

Principal Investigator : Farrukh Anser,

Co-Investigator: Owais Anwar

Northwest School of Medicine (NWSM), Peshawar.

Introduction :

Cardiovascular diseases (CVDs) are recorded as one of the primary drivers of mortality and morbidity by the World Health Organization. These days, Cardiovascular Diseases (CVDs) represents an escalating worldwide public health problem. Diabetes mellitus is a standout amongst the most widely recognized chronic disease today. Diabetes is increasingly diagnosed among children and young adults worldwide.

Objectives:

1. To determine the Cardiovascular disease and diabetes risk score in the undergraduate medical students of Khyber Pakhtunkhwa Pakistan.

Methodology:

900 students were sampled from nine medical colleges of KPK. A cross-sectional study was completed amid the instructive year of 2019 at Northwest school of medicine (NWSM), Peshawar. The ethical protocol was pursued and purposive and multistage sampling techniques were utilized. Data was collected through a questionnaire based on Framingham risk score for CVDs and Findrisc scale for diabetes risk among undergraduate medical students.

Results:

The results showed that 2.3% of undergraduate medical students are at high risk whereas 12.4% are at moderate risk of developing CVDs. 6.3% of students are at high risk while 34% are at moderate risk of developing diabetes. 95% of students have good knowledge of risk factors for developing CVDs and diabetes.

Conclusion:

1. Students are more prone to developing diabetes than cardiovascular diseases which require serious attention. Projects should be initiated to bring awareness about CVD risk factors.

Keywords: Cardiovascular disease, Diabetes Mellitus, students.

COGNITIVE DEVELOPMENT IN BREASTFED AND BOTTLE FED CHILDREN UP TO 2 YEARS OF AGE- A COMPARATIVE STUDY

Principal Investigator: Iqra Zaheer

*Co-Investigators: Ayesha Rashid, Faryal Ishtiaq, Insha Fatiam, Anum Waheed, Ayesha Ahmed,
Asifa Afzal, Arshia Bilal
Fazaia Medical College*

Introduction:

Breastfeeding is known as the gold standard source of nutrition for a baby providing long term neuro developmental benefits.

Objectives :

1. To improve the cognitive development of children by emphasizing the importance of breast feeding.
2. Assessment of frequencies of various feeding practices (breastfeeding, bottle feeding and mixed feeding) among mothers and the assessment of cognitive development and achievement of milestones among children up to 2 years of age as well as to find association between the two.

Methodology:

Cross sectional study using consecutive sampling, data was collected in the hospitals of Islamabad and cognitive development was assessed in 105 children of up to 2 years of age by interviewing the mothers using self-developed questionnaire based upon Ages and Stages Questionnaire 3rd edition. Scoring was done and cut-off values were set separately for each age group to determine the child's development status.

Results:

1. Breastfed children were only 40%, 25.7% were only bottle-fed and 34.3% were mixed fed.
2. Children who were only breastfed had satisfactory results (92.9%) on ASQ as compared to those who were only bottle-fed (70.4%) or those who were mixed fed (83.3%).
3. We found statistically significant association between breastfeeding and cognitive developmental status of child as well as breastfeeding.

Conclusion:

1. Most prevalent type of feeding practice is breastfeeding, followed by mixed feeding whereas only bottle-feeding is least practiced.
2. Breastfed children had higher proportion of satisfactory cognitive development.
3. A clear association was also found between type of feeding practice and cognitive abilities of child.

Keywords: Bottle fed, breast fed, mixed fed, cognitive development

COMPARISON OF BODY IMAGE WITH ACTUAL BODY MASS INDEX (BMI)

Principal Investigator: Muhammad Umar Ahmad

Co-Investigators: Usama Tariq, Zahid Hafeez, Saqib Rashid, Haroon Sabir

Introduction:

Obesity is a worldwide problem that renders risk to health. There is rising load of obesity in Pakistan. People's perception about their weight status is an important issue. Many people fail to perceive accurately as being overweight or obese.

Objectives:

1. To compare the subjective feeling of being obese and non- obese with their calculated BMI and
1. To determine the willingness to lose body weight among obese and overweight perceivers.

Methodology:

It was a cross-sectional study carried out at Shalamar medical college Lahore. A total of 403 adults (≥ 18 years) participated in study. Convenient sampling technique was used to recruit the participant. Written informed consent was taken before filling the form; self-administered questionnaire was distributed and completed. Height and weight were recorded and BMI was calculated. Data was analyzed by SPSS version 24.

Results

A total of 403 subjects with mean age of 36 ± 0.71 were included in the study. The mean BMI was 26.68 ± 0.30 . According to the actual calculated BMI of the whole population, 223 people had BMI > 25 (Asian criteria for obesity). In this obese group, 61% were able to recognize themselves obese but 39% of people didn't consider themselves as obese. When obese perceivers were further evaluated about their willingness to lose body weight, 87% showed their willingness. Subjects with BMI > 25 was further stratified according to gender and age. Males (78%) were found to be less accurate in perception of their body image as compared to females (22%). Accurate perception of body image was also found to be less in subjects (64%) more than 40 years of age.

Conclusion:

More than one-third of the obese subjects according to the BMI were unable to perceive themselves as obese. Awareness about normal body weight and excess body weight is lacking in the studied population.

Keywords: Perception, BMI, Obesity

COMPARISON OF VISUAL SYMPTOMS AFTER GAMING ON COMPUTER AND SMARTPHONE IN STUDENT OF PICO

Principal Investigator: Johar Adil

Pakistan Institute of Community Ophthalmology

Introduction :

In today's digital age, video games have become a vital part of our daily lives. Worldwide, smart phones were used by 1.85 billion people in 2014; this number is expected to be 2.32 billion in 2017 and 2.87 billion in 2020. Blurry vision is occasionally linked to the failure of the eyes to steadily focus on a computer and smart phone screen for a significant amount of time. Extensive use of smart phone and computer at near lead to excessive stimulation of ciliary muscle, therefore cause accommodative spasm.

Objectives :

1. To evaluate symptoms associated with computer and smart phone gaming.

Methodology:

A comparative cross-sectional study was conducted in Pakistan institute of community ophthalmology (PICO) among students during a time period of 6 months (September, 2019 to February, 2020). In probability sampling, Stratified sampling following systemic procedure was used for collection of my data. Data Collection tool used was Questionnaire and the analytical method used was SPSS (version) 17.0

Results:

A total of 32 completed questionnaires were received.

1. Out of 100%; 40.6% (13) subject spend less than 1 hour on smartphone gaming, 37.5 (12) 1-2 hour on smartphone gaming, 9.4% (3) 30 minutes or less on smartphone gaming and 12.5% (4) were not playing on smartphone.
2. Out of 100% 18.8% (6) of subject spend 1-2 hours on computer gaming, 15.6% (5) less than hour, 9.4% (3) 30min or less and 56.3% (18) were not playing on computer.

Conclusion:

1. From my study it is concluded that gaming on smart phone has more bad effect on our eyes as compared to computer.

Key words: Smart phone, computer, gaming and visual symptoms.

CONSERVATIVE MANAGEMENT TECHNIQUES FOR IDEAL GROOMING AND UPBRINGING OF DOWN SYNDROMES

Principal Investigator: Ibtesam-e-Fajar

Al Nafees Medical College, Isra University Islamabad Campus

Introduction:

Down syndrome are slow learners having mild to moderate intellectual disability with co-morbidities, we need to pay special attention on conservative management techniques like early intervention programs, speech therapies, physiotherapies, exercises, sports, schooling and education etc. to make these children intellectual, groomed and compatible for a normal life.

Objectives :

1. To identify the conservative management techniques for improving the quality of life for down syndromes.

Methodology:

A descriptive cross-sectional survey (designed after literature search) was conducted from the parents of Down Syndromes at special children schools in Islamabad and Rawalpindi according to inclusion criteria i.e. School going down syndromes and residents of Islamabad and Rawalpindi, in an interactive counselling session conducted by authors in collaboration with pediatrician, keeping the questionnaire anonymous. After data collection it was entered in SPSS v25 for statistical analysis in terms of frequencies and percentages.

Results:

1. For the management of Down Syndromes, out of 44 parents, 80% (n=36) agreed on home based teaching, 70% (n=31) agreed on exercise, gym and sports for down syndromes.
2. Around 90% (n=40) agreed on speech therapy and social interactions, 70% (n=31) parents agreed on controlled and healthy diet and 80% (n=36) parents said brain storming and learning new things should be in practice for down syndromes.

Conclusion:

1. The quality of life for down syndromes can be improved by conservative management techniques like indulging in physical and mental activities, speech therapy, social interactions and a healthy diet etc.

Keywords: Down syndrome, Schools, Exercise

DEPRESSION AND ANXIETY IN UNIVERSITY STUDENTS AND THEIR DIETARY PATTERNS

Principal Investigator : Qurratul Ain Ghani

*Co-Investigators: Saba Gul Zafar, Qandil Zahra, Qandil Mumtaz Malik, Rabia Ishaque,
Anum Tariq, Juwayria Omar, Samira Khurram
Fazaia Medical College*

Introduction :

In competitive age, students are striving to accomplish academic excellence. However, burden of higher studies is negatively affecting the mental health of the students. According to a survey done, anxiety is the top presenting concern among college students at 41.6%, followed by depression 36.4%. Therefore, it is necessary to study and comprehend the various factors contributing to anxiety and depression.

Objectives :

1. The aim of the study is to find the frequency of anxiety and depression among university students
2. and study its association with their dietary patterns in order to raise awareness about the benefits of healthy diet
3. and promote healthy eating habits for better academic performance.

Methodology:

After informed consent, 100 students were selected by simple random sampling from various departments of Air University. Data analyzed using SPSS version 20 in the form of frequencies, percentages and cross tabulation. The 'Aga Khan University Anxiety and Depression Scale' was used to determine the frequency of anxiety and depression. A 'Food Frequency Questionnaire' was used to provide a guideline regarding serving sizes. Recommended daily servings of various food groups were determined from the USDA 'Food Guide Pyramid'. Students scoring 20 or above on the scale were considered to be suffering from anxiety and depression.

Results:

1. Out of 100 students, 68% were found to be suffering from anxiety and depression. Of these 68 students, 76.5% were not taking any nutritional supplements, 77.9% were consuming carbonated drinks, 82.4% were consuming junk food, 82.4% were non-smokers and 88.2% people spent 6 hours or more in the university per day.

Conclusion:

1. The results thus show unhealthy dietary patterns among the students with high stress levels possibly due to increased university hours and other variables.

Keywords: Anxiety, Depression, Students, Diet, Air University

DETECTION OF MALNOURISHED CHILDREN BELOW 5 YEARS OF AGE IN ISLAMABAD, MISSED THROUGH CURRENT WHO GUIDELINES

Principal Investigator : Zarafshan Aman

Co-Investigator: Saad Azhar, Zohaib Masood, Ume Aimen, Iqra Azam, Zarafshan Aman, Talha Imran
Fazaia Medical College, Islamabad.

Introduction :

High prevalence of malnutrition in Pakistan highlights the importance of detection of all cases by evaluating children presenting for other complaints to OPD. The two main indicators used in this regard, are weight for height Z score (WHZ score), and mid upper arm circumference (MUAC).

Objectives:

1. The aim of the study was to improve the detection of acute malnutrition in children under 5 missed through current WHO guidelines using MUAC and WHZ score.
2. Children were also evaluated and the association with anthropometric measures and socio demographic factors were determined.

Methodology:

A cross-sectional study carried out in the Paediatrics OPD of PIMS Hospital Islamabad. 112 children less than 5 years of age were included but severely ill children and children with congenital malformations were excluded. Systematic random sampling and a close-ended nutritional survey questionnaire were used.

Results:

Our results showed that MUAC was more effective at detecting severely acute malnourished (SAM) cases and detected more cases of malnutrition overall compared to WHZ. We also found various relations between socio-demographic, nutritional, and infection related factors with malnutrition.

Conclusion:

1. Adjustments in current malnutrition-diagnostic criteria and MUAC cut-off points are necessary to improve efficient detection of malnourished cases.
2. Raising awareness of the contributing effects of nutritional and socio-demographic factors will also help to curb the current burden of malnutrition.

Keywords: Malnourishment, children, WHO guidelines.

DETERMINING THE HEALTH STATUS OF CHILD LABOURERS IN DISTRICT PESHAWAR

Principal Investigator: Muhammad Arsalan

Co-Investigators: Sana Ihsan Javeria, Naveeda Sarwar
Pak International Medical College

Introduction

Child labor is harmful to physical-mental development. It leads to deprive them of the opportunity to attend school.

Objectives:

1. Objective of this study was to determine the severity of health status among child laborers in District Peshawar.

Methodology:

Cross-sectional Descriptive study was carried out in different restaurants and workshops in district Peshawar from December 2018 to March 2019. Female of 8-14 years were excluded from the study because of culture boundaries. Sample of 150 was taken and convenient sampling technique adopted. A questionnaire was developed for data collection. Data was analyzed through SPSS 22.

Results:

1. A total of 150 responses were received from the targeted respondents.
2. 53.3% were deprived of primary education. 12.7% got secondary education.
3. While 34 % has no education. 24 % are working in workshops. 49.3% Item seller, 16.7% as shoe polisher and 10% as Vegetable /food seller.
4. Regarding reason for their labor, 82% poverty, 11% had their parent's dead and 7 % due to physical abuse.
5. Regarding environmental condition, 45% were working in crowded places, 23% smoky places, 22% unhygienic places and 10% poor lighting & ventilation

Conclusion:

1. The current study demonstrates the unsafe working conditions and children are at risk of work-related injuries and illnesses.
2. They were also deprived of education.

Keywords: District Peshawar, Child Labourers, Cross-Sectional, Environmental Problems, Health Status

DIABETES MELLITUS KNOWLEDGE, HEALTH BELIEFS, AND MANAGEMENT AMONG DIABETIC PATIENTS IN PESHAWAR

Principal Investigator: Zubash Nawab

Co-Investigators: Ramin Jan, Hadiqa, Almas Khattak
Northwest School of Medicine (NWSM) Peshawar, Pakistan

Introduction:

Diabetes is the most common important metabolic disease. Due to its high prevalence, diabetes is considered as a health problem worldwide. It is widely accepted that good self-care protects against complications of diabetes and that the patient must actively manage the disease's requirements in order to achieve optimal diabetes control. Better health beliefs of patients mean better disease control and management.

Objectives:

1. To determine the health beliefs of diabetic patients in two tertiary care hospitals of Peshawar,
2. Assess the knowledge of diabetic patients regarding their disease and
3. To study the management of diabetes among diabetic patients.

Methodology:

200 diabetic patients were selected from two tertiary care hospitals of Peshawar to conduct a cross sectional study after ethical approval was obtained. All the diabetic patients visiting outpatient diabetic clinics in the two tertiary care hospitals were included in the study. The popular Health Belief Model was used to collect data regarding diabetic patients' perceived susceptibility to diabetic complications, severity of diabetes, benefits of diabetes control and perceived barriers to diabetes control. Data were analyzed using SPSS 24.

Results:

Mean age of patients was 50 ± 13.9 years with 63.5% having good knowledge of their diabetes disease. 97.5% of diabetic patients perceived higher susceptibility to diabetic complications as well as perceived their disease to be a severe disease. All the patients except one perceived that controlling their diabetes had many benefits. 54.5% perceived they had barriers to controlling their diabetes (females > males). 88.5% had good self-reported management of their diabetes.

Conclusion:

1. Majority of the patients believe to be highly susceptible to diabetic complications, have serious disease, consider diabetes control has great benefits to their health and face barriers to control their diabetes (females more than males).
2. More than half of patients have good knowledge of their diabetic disease and majority have good self-reported management of their diabetes (females more than males).

Keywords: Diabetes mellitus, Knowledge, Management, Health beliefs

EFFECT OF SMART PHONE USE ON CONVERGENCE AMONG STUDENTS OF PAKISTAN INSTITUTE OF COMMUNITY OPHTHALMOLOGY

Principal Investigator: Hikmat Ullah Afridi,

Co-investigator: Sania Abdul Jalil Khan

Pakistan institute of community ophthalmology (PICO).

Introduction:

A smart phone is a cellular telephone with high technical features such as operating system, web browsing and the capability to run software applications. Convergence is simultaneous inward movement of both eyes to maintain binocular single vision. As smart phone is mostly used by students nowadays for study purpose and internet access which may lead the factors affecting the eye health so It is importance to investigate the effect of smart phone usage over Convergence in students.

Objective:

1. To evaluate the effect of smart phone usage on convergence among students.

Methodology:

A Descriptive cross-sectional study was conducted in PICO, Peshawar. Data was collected in a period of 6 months (September 2019 to February 2020). Convenient sampling was used and a questionnaire was administered by RAF rule. Analytical tool SPSS 17.0 was used.

Result:

1. Data was collected from 101 students of PICO. Convergence excess was recorded in smart phone users.
2. Convergence was excess in male 79%. Age group 18-21 years have convergence excess 80%.
3. Subjects with dull illumination have excess convergence 100%. Convergence was excess in study activity 91% in smart phone users.
4. Convergence excess was recorded in night time users 86%. Subjects who spend more than 6 hours have 90% convergence excess. Subjects with convergence excess have more symptoms 87.3%.

Conclusions:

1. It is concluded that the subjects who use smart phone more than 6 hours, they have convergence excess with worse symptoms.

Keywords: Smart phone, Convergence excess, Convergence insufficiency.

ENERGY DRINK CONSUMPTION AND EATING HABITS AMONG STUDENTS OF AIR UNIVERSITY

Principal Investigator: Ayesha Saghir

*Co-Investigators: Zainab Akbar, Sumiaya Kausar, Maryum Iftikhar, Zarnigar Khan, Syeda
Ambreen Gulaab, Mahwish Akhter, Rukhsana Khan
Fazaia Medical College*

Introduction :

Industrialization of Pakistan led to a shift from traditional to western diet preferences. Increase consumption of Energy Drinks (ED), soft drinks, snacking and fast food has made a dramatic effect not only on our dietary habits but also on the overall health of the young population.

Objectives :

1. To investigate the association of Energy Drinks consumption on the dietary habits of Air University students
2. and the reason for consumption of energy drinks.

Methodology:

A cross-sectional study conducted in Air University with 103 students, 19-25yrs of age with 52 were males and 51 females. Structured questionnaire consisting of 25 questions was used. Data was analyzed using SPSS. Chi square test was used to determine the association of ED consumption and dietary habits of AU students.

Results:

1. 31% of study population consumed energy drinks. 62.5% did not need any special occasion to do so. As far as dietary habits are concerned, non-ED consumers have a healthier life style.

Conclusion:

1. Energy drink consumers are 31%. Energy drink consumers are not aware of the side effects and their dietary habits are also not healthy.

Keywords: Energy drinks, young adults, dietary habits, healthy diet.

FACTORS PREVENTING EXCLUSIVE BREASTFEEDING AMONG WORKING AND NON-WORKING WOMEN

Principal Investigator : Amna Saeed Khan

*Co-Investigators: M. Sameer Shahid, Abaid Arif, Abdul Haseeb Ahad, Ayesha Riaz,
Bazil Ahmed, Maheen Bilal, Huma Mustehsan
Fazaia Medical College*

Introduction :

WHO emphasizes the importance of “Exclusive breast feeding” (EBF). Global target 2030 for EBF is 70%. In Pakistan, prevalence of exclusive breastfeeding is 37.7%.

Objectives :

1. To highlight and compare the factors affecting exclusive breastfeeding practices among working and non-working women living in various parts of Islamabad
2. and to assess the association between EBF, socio-economic status and working status of a woman.

Methodology:

A descriptive, cross-sectional study was carried out using a self-constructed questionnaire with a sample size of 100 mothers. The research spanned from March till August 2019. Data was analyzed using SPSS.

Results:

1. In the study population, 26.5% of working and 75.5% of non-working women exclusively breast fed their babies.
2. The main reason for decline of EBF amongst working women was the compulsion to return to their jobs soon after delivery and non-working women complained of finding EBF as too tiring along with breast tenderness.
3. EBF practices decreased with increase in the socioeconomic status.

Conclusion:

1. EBF practices were found to be significantly more common in non-working mothers although they faced more constraints than working women.
2. Better maternity leave periods and timings, combined with breastfeeding friendly environment to facilitate working mothers can help tackle the enigmatic issue of mothers not continuing EBF with full commitment.

Keywords: Exclusive breast feeding, working women, Housewives

FEEDING PRACTICES IN CHILDREN LESS THAN 3 YEARS SUFFERING FROM DIARRHEA

Principal Investigator : Noor Fatima

*Co-Investigators: Nukhba Nasir, Aimen Noor, Rameesha Jahangir, Sana Zain,
Juwayria Omar, Samira Khurram
Fazaia Medical College*

Introduction :

Breast milk incorporates all supplements and antibodies, especially IgA and shields babies from various respiratory and GIT diseases. Breast feeding practices can save approximately 800,000 babies each year. World health organization recommends that mothers should breastfeed their babies exclusively for 6 months.

Objective :

1. Objective of the study is to find out if there is any association of malnutrition and severity of diarrhea with bottle feeding or breast feeding
2. and different feeding practices in children under 3 years of age in diarrhea.

Methodology:

It was a cross sectional study conducted in PAF hospital unit 1 and 2. The sample size was $n=100$. It was based on convenient sampling technique.

Results:

1. 42/100 children were given bottle milk and 23/100 were given breast milk, irrespective of the weaning.
2. Association between feeding practices and increase in severity of diarrhea through Chi square test was significant with a p value of 0.035 $P < 0.05$. Association between feeding practices and malnourishment through chi square test shows a positive association with P value of 0.008 (<0.05).

Conclusion:

1. Our results show mothers should actively be encouraged to breastfeed and be enlightened about the importance of breastfeeding.

Keywords: Bottle feeding, Diarrhea, Feeding practices.

FREQUENCY AND DEMOGRAPHIC DETERMINANTS AMONG UNDERWEIGHT SCHOOL CHILDREN

*Principal Investigator: **Habib-e-Ajmi***

*Co-Investigators: Rida Hayat, Shanza Khan, Remsha Fatima
Shalamar Medical and Dental College*

Introduction:

Under-nutrition and consequently underweight members badly affect the healthy dynamics of a functional society. Malnutrition in the form of under-nutrition is one the leading causes of being underweight in the developing countries.

Objectives :

1. To determine the prevalence of underweight and demographic factors associated with it among school going children of Lahore, Pakistan.

Methodology:

A cross-sectional study with convenient sampling technique was carried out at Shalamar Medical and Dental College. Children from public and private schools of Lahore, 6-16 years of age were included in the study. Assent was taken from the participants and consent was taken from parents. Data was recorded on a questionnaire. Body weight and height were recorded and BMI calculated. Children were classified as underweight and normal weight according to BMI for age growth charts (CDC, 2000). Student "t" test, "One-way ANOVA" and "Chi-square" tests were applied to analyze the data through SPSS version 21.

Results:

1. The mean age of the participants was 12.24 ± 0.26 years, 17% of school children were found to be underweight.
2. Among underweight children, 74% belonged to middle and 20% to low socioeconomic class, and 50% had illiterate parents.
3. Girls were found to be more underweight compared to boys.
4. Children belonging to pre-adolescent age group, low socioeconomic status, taking 1-2 meals/day, having illiterate parents and sleeping for >10 hours/day had significantly ($p < 0.05$) less BMI and were underweight.
5. Significant association was observed with age, gender, parent's education, and sleeping hours in underweight school children.

Conclusion:

1. Prevalence of underweight school children in Lahore was 17%.
2. Female sex, parent's education, and more sleeping hours were significantly associated with underweight.

Keywords: Underweight, School children, Prevalence

FREQUENCY OF MYOPIA IN ASSOCIATION WITH VISUAL HABITS IN HILLY AREAS AND PLAIN AREAS AMONG SCHOOL GOING CHILDREN

Principal Investigator: Adila Qasim

Co-Investigators: Qurat-ul-ain and Urooj Fatima

Students of School of Optometry, The University of Faisalabad

Introduction:

The more time spent on outdoor activities have significantly decreased frequency of myopia as compared to those who spend excessive time in indoor activities among school going children in hilly and plain areas.

Objectives:

1. The aim of the study is to determine the frequency of myopia associated with visual habits in hilly and plain areas
2. and to compare the visual habits of school going children of hilly and plain areas.

Methodology:

A descriptive cross-sectional study was done in hilly and plain areas. The sampling technique used was non-probability convenient sampling technique. This study involved 300 participants of both genders and age range from 7-18 years along with myopia of all types. The participants with ocular and systemic pathologies, hyperopia, astigmatism and ocular surgeries were not included. After taking informed consent, visual acuity was taken with standard Log MAR Chart with and without glasses, refraction was performed for refractive error and direct ophthalmoscope for assessment of fundus health. Data was analyzed by using the SPSS version 20 for statistical analysis.

Results:

1. The results showed that there is a strong association between myopia and visual habits in hilly and plain areas within the levels of significance ($p < 0.05$).
2. According to results the mean frequency of the myopia was greater in children of plain areas with greater indoor activities (more screen use and more time staying indoor) as compared to children of hilly areas who have significantly increased outdoor activities.

Conclusion:

1. The study concluded that the children of hilly areas have less frequency of myopia as compared to children of plain areas and there was association between myopia and visual habits in hilly and plain areas.
2. Populations have less awareness that visual habits directly related to myopia.
3. A result of this study provides awareness and health education to people in hilly areas and plain areas.

Keywords: Myopia, outdoor activities, indoor activities, hilly areas, plain area

FREQUENCY OF NECK AND SHOULDER PAIN AMONG BANKERS AND STOCK EXCHANGE MARKET EMPLOYEES USING ELECTRONIC DEVICES IN KARACHI, PAKISTAN

Principal Investigator: Shahzaib Qureshi

Co-Investigators: Sheza Khalique, Warisha Riaz, Faheem Khan, Ameer Hamza, Hassan Meshal

Hamdard College of Medicine and dentistry, Hamdard University Karachi

Introduction:

Complaints of neck and shoulder are common worldwide and because work related musculoskeletal disorder (MSD) leading to poor quality of life. This is a common problem among computer users because of no awareness of ergonomics. Pain starts anywhere from the base of the skull at ear level to upper part of back and shoulder. Neck and Shoulder pain are mainly linked owing to prolonged periods of sitting with no breaks to stretch. People working in offices and banks, using electronic devices are specially at higher high-risk. Research has been done regarding the prevalence of Neck and Shoulder pain in Bankers and Stock Exchange Employees in Karachi. But no study has been done so far in Pakistan on the subject. The purpose of this study is to explore the prevalence of Neck and Shoulder pain among Bankers and Stock Exchange employees in Karachi, Pakistan

Objectives:

1. To find out frequency of neck and shoulder pain among Bankers and Stock Exchange Employees using electronic devices in Karachi

Methodology:

500 Employees are interviewed through modified Maastricht Upper Extremity Questionnaire (MUEQ), to identify neck and shoulder pain. Data was recorded and analyzed using IBM-SPSS 22

Results:

1. The study results showed that interviewed employees were aged between 25 to 45 years. 81% employees feel pain during working while 19% were pain free.
2. The prevalence of neck pain was found in 25.2% of employees while shoulder pain in 27.4% and both pains in 28.4% of the respondents.
3. Results demonstrated that discomfort of neck and shoulders in both genders is significant.

Conclusions:

1. Study concluded that complaints of neck and shoulder are common in office workers using electronic devices.

Keywords: Neck pain, MSD, Ergonomics

HEALTH INFORMATION SEEKING PATTERN OF PATIENTS AND THEIR PERCEPTION REGARDING RESPONSE OF DOCTORS IN A PRIVATE TERTIARY CARE HOSPITAL

Principal Investigator: Khuzaimah Anwar Ullah

Co-Investigator: Bilal Mehmood, Ayesha Siddique, Mohammad Danyal Bawa, Maria Shahzad, Ujala Mushtaq, Students,
FMH College of Medicine and Dentistry, Lahore

Introduction :

Both the doctors and the patients are being affected by the abundance of health information available online and other electronic and print media sources. This information can affect the doctor and patient in both positive and negative ways.

Objectives :

1. To study the health information seeking pattern of patients and their perception regarding the response of doctors about obtaining health information from sources other than health professionals.

Methodology:

A descriptive study using non-probability; convenience sampling was conducted among patients, attending outpatient departments of Fatima Memorial Hospital during a 6-months' time frame using an interview-based questionnaire. Sample size was 330. Data was analyzed using descriptive statistics through SPSS version 23.0.

Results:

1. Among patients, 57.3% sought health information from sources other than health professionals, with 70.9% using the internet and 77.8% believed this health information was reliable.
2. Statistically significant association of patients seeking health information obtained from alternative sources was seen with residence ($p=0.018$) and educational status ($p=0.000$) and between patients using the internet as alternative source with age groups ($p=0.006$).
3. Regarding, perception of patients about the response of doctors, 62.9% said the doctor was willing to talk about information they obtained and 54.5% replied the doctor got offended on sharing health information whereas 65.1% said the doctor guided them about health information obtained.

Conclusion:

1. The patients are more eager to obtain information regarding their health issues from internet/online sources and believe it is reliable.
2. The doctors are mostly willing to listen and discuss this information with patients.

Keywords: Health information; Health professionals; Doctor; Patient; Internet.

INCREASING TREND OF DEPRESSION IN TEENS AND YOUNG GENERATION OF PAKISTAN

Principal Investigator: **Warisha Munim**

Co-Investigators: Tanveer Bano, Tooba Tahir, Radia Sehar, Tehreem Hasan,
Sheza Maryem Kalim

Department of Pharmacology, University of Karachi

Introduction :

Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. It can lead to variety of emotional and physical problems which affect normal day-to-day activities.

Objectives :

1. The purpose of our study is to evaluate how common is depression in teenagers and young generation
2. and to evaluate the causes of depression and create awareness.

Methodology:

A survey-based study was carried out consisting of N=100 Teenagers of age group 14-16 years studying in different schools and N=100 young generation of age group 19-22 years studying in different universities. The study was conducted for 1 month. Data was collected from the participants by directly contacting them. DSM-IV questionnaire was considered for evaluation.

Results:

1. From our results we found that 85% of the teenagers have heard about depression and 90% of them have its symptoms
2. while 90% of young generation is aware about depression and 73% of them are suffering from it.

Conclusion:

1. From our study we came to conclude that majority of the teenage population and young generation are facing symptoms of depression
2. and the causes of depression in both categories are same that is burden due to study load, lifestyle demarcation in schools and universities and lack of encouragement and motivation from family and friends.

Keywords: Depression, Awareness, Lifestyle.

KNEE OSTEOARTHRITIS: ACTIVITIES AND QUALITY OF LIFE AND ITS EFFECT ON RELIGIOUS PRACTICE-A CROSS SECTIONAL STUDY IN SWAT DISTRICT OF PAKISTAN

Principal Investigator: Saeedullah

*Co-Investigator: Amer Zaib, Qaiser Ali, Saqib Khan, Sahazad Qamar
Hamdard College of Medicine and Dentistry, Karachi.*

Introduction :

Knee osteoarthritis (OA) is a degenerative joint disease and it is the leading cause of chronic disability at older ages. This condition impacts health in various ways including functional, mental and economic, and the quality of life.

Objectives:

To evaluate the knee difficulty (loss of function) and quality of life among the population of Swat region of Pakistan who have been adapted to chair usage to offer the prayers five times a day.

Methodology:

A cross sectional study was done during March till September 2019. A pre-tested and validated KOOS questionnaire was administered to participants who have been modified prayer procedure by adapting the chair to offer the prayers instead of praying on the ground. Pain, symptoms, activities of daily living, sport and recreation function and knee-related quality of life (QOL) were assessed. SPSS version 22 was used for statistical analysis. P-value < 0.05 was considered as statistically significant.

Results:

1. Out of a total 400 participants, the majority of participants 270 (67.5%) had a family history of knee pain, 366 (91.5%) having bilateral knee problem and 357 (89.3%) had no previous knee injury.
2. Females were found to have more knee related complaints as compared to males. Statistically significant ($P < 0.05$) difference has been observed between the activities of daily living with male and female participants.

Conclusion:

1. The study revealed that the knee function and quality of life has declined over the years. Using an alternate way to offer prayers can limit the deep flexion thus reducing the pain during prayers.

Key words: Knee osteoarthritis, Prayers, Religion, Pakistan.

KNOWLEDGE AND PRACTICE OF SAFETY PROTOCOLS AMONG THE BOXERS OF PESHAWAR

Principal Investigator: **Muhammad Faizan**

Pakistan Institute of Community Ophthalmology (PICO)

Introduction :

Boxing is one of the most famous and dangerous combat sports. Boxers face many internal and external body injuries mostly of eyes and head injuries. Most eye injuries happen due to lack of knowledge about safety measures. To overcome the possibilities of injury, therefore boxers need to use safety protocol.

Objectives :

1. To evaluate the level of awareness about ocular protection among boxers.
2. To evaluate the level of safety protocols followed by boxers of Peshawar.

Methodology:

A Cross sectional study was progressed in boxing gyms of Peshawar. For 6 months (September, 2019 to February, 2020). Non probability - convenient sampling technique used. Questionnaire was analyzed with SPSS (version) 17.0

Results:

1. Data was collected from 52 boxers of Peshawar who were present at the gym to participate in the study.
2. In which 10 (19.2%) boxers are aware and remaining 42 (80.8%) are unaware about safety protocol.
3. Those who are aware, among them 7 (70%) boxers have low level of awareness and 3 (30%) boxers are having moderate level of awareness.
4. 11 (21.2%) boxers are following safety protocols and 41 (78.8%) are not following properly.

Conclusion:

1. It is concluded that the majority of the boxers were unaware about the safety protocols.
2. Among those who were aware about the safety protocol of boxing, their level of awareness was low and half of them were following safety protocols.
3. Amateur boxers were following safety protocols more than professionals and coaches. The reason for not following safety protocols is that they cannot afford safety equipment.

Key words: Safety Protocols, Eye Injuries, Awareness

KNOWLEDGE, ATTITUDE AND PRACTICE OF SELF-CARE AMONG DIABETIC PATIENTS ATTENDING BENAZIR BHUTTO HOSPITAL, RAWALPINDI

Principal Investigator: Muhammad Sarfraz Khan

Co-Investigators: Areeb Khalid, Abdur Rehman, Tanveer Hussain

Rawalpindi Medical University

Introduction :

Diabetes is one of the major causes of morbidity and mortality; it has a significant impact on the patients' quality of life, productivity and involves enormous health costs for virtually every society.

Objectives :

1. To access the knowledge, attitude and practice of self-care among diabetic
2. and relationship between self-care knowledge with demographic characteristics.

Methodology:

It is cross sectional study done at diabetic clinic of Benazir Bhutto Hospital, Rawalpindi between September 2016 and March 2018. The Diabetes Self-care Knowledge (DSCK-30) was used in evaluating knowledge of self-care practices. Socio-demographic information was also collected. A sum of 380 patients were interviewed. Diabetic patients who were >18 years and have been taking anti-diabetic medications for at least one month prior to the study were included while Pregnant patients, and newly diagnosed (less than 1 month), or yet to be placed on medications were excluded. Data were analyzed using Microsoft Excel and SPSS version 22.

Results:

1. The majority of the study sample, 212 (55.8%) had a high (70% or over) overall knowledge level about Self-care while the rest 168(44.2%) showed low (<70%) overall knowledge.
2. It was found that self-care knowledge was associated with friends and relatives with diabetes ($p<0.001$), age ($p<0.001$), monthly income ($p<0.001$), Education ($p<0.002$) and duration of diabetes ($p<0.006$).

Conclusion:

1. Diabetes self-care knowledge was generally high among the population studied. Age, relatives with diabetes, monthly income and duration of diabetes predicted knowledge level.

Keywords: Knowledge, Attitudes, Practice; Self-care; Benazir Bhutto Hospital

KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING OCULAR FINDINGS IN BRICK KILN WORKERS

Principal Investigator: Sarosh Iftikhar

Co-Investigators: Maryum Ashfaq, Hafiza Nabia Amjad
University of Faisalabad

Introduction :

Brick manufacturing is a labor-intensive informal industry of Pakistan.

Objectives:

1. The purpose of this study was to check their knowledge, attitude and practice regarding ocular findings
2. and its associated symptoms in Brick kiln workers.

Methodology:

A descriptive cross-sectional study design was conducted at brick kiln sectors, Faisalabad. Total study sample of this study was 150 subjects are taken from kiln age range from 15 to 35 years. Both males and females were included. Non probability convenient sampling technique was used to collect data. All participants were gone through standardised eye examination such as visual acuity, torch light examination for adnexa, tear film assessment and ophthalmoscope for fundus. Data was analyzed by using descriptive statistics and chi-square test. SPSS version 20 was used for statistical analysis.

Results:

The result of this study showed a change in Knowledge, attitude and practice regarding ocular findings in Brick kiln workers with significance of ($P < 0.05$). The study revealed that the respondents had higher prevalence of 95% dry eye syndrome, 90% pterygium, 60% pinguecula, 50% blepharitis, 55% sty, 55% chalazion, 30% conjunctivitis, than keratitis, corneal opacities and macular degeneration. As much they work nearer to kiln factors which were affecting their ocular health and their associated symptoms like redness, watering, itching, photophobia and burning of eyes was increasing.

Conclusion:

1. The study revealed that Brick kiln may emit fine particles of dust, organic solvents such as Sulphur dioxide and carbon monoxide, large amount of heat and smoke which was causing serious ocular problems.
2. This study provided the knowledge regarding ocular findings in brick kiln workers according to occupational hazards by early assessment and screening of ocular problems.

Keywords: Smoke, Brick kiln workers, Ocular findings, Ultraviolet Rays.

KNOWLEDGE, PERCEPTION AND PSYCHOSOCIAL IMPACT OF ACNE AMONG ADOLESCENTS OF KARACHI

Principal Investigator : Ruba Safdar

Co-Investigators: Usama Idrees, Mubashra Amjad, Hafiz Usama Zaid, Zainab Allaudin, M. Zunair

Hamdard College of Medicine & Dentistry, Hamdard University, Karachi

Introduction :

Acne vulgaris is a common skin condition that starts in adolescence. Information on the understanding of acne in adolescents and its psychological impact has occasionally been reported in the medical literature.

Objectives :

1. To determine the knowledge, perception of acne among adolescents of Karachi, Pakistan.
2. To find out the psychosocial impact on individuals suffering from acne.

Methodology:

A descriptive cross-sectional study was done between November 2018 to August 2019 on 450 adolescents from colleges of Karachi. Non-probability convenience sampling technique was used. A questionnaire with demographic characteristic, awareness and understanding of acne treatment and psychosocial effect on an individual with acne was administered. Data was analyzed by SPSS 22.

Results:

1. Out of a total of 450 participants, 320 (71%) were females.
2. Mean age was 16.24 ± 1.96 . Nearly half of the study population (42%) agreed to suffer from acne in the past, whereas 49% seek treatment within three months.
3. Parents (29%) had maximum influence in pursuing treatment and providing information about acne. Poor skin hygiene (41%), diet (31%) and stress (31%) were identified as the common causes of acne.
4. A strong negative impact on self-image, individual's life, family and friend's relations and workload was found ($P < 0.001$).

Conclusion:

1. The study reported an unhealthy lifestyle and late treatment of acne among participants that would result in a disease that would take more time to resolve. Most of the participants seek treatment on parents and friends influence.
2. There is a need for accessible, accurate education on acne and its appropriate treatment.

Keywords: Acne Vulgaris, Adolescence, young adults, skin infection.

KNOWLEDGE ATTITUDE AND PRACTICE OF SOCIETY TOWARDS SPECTACLES AND CONTACT LENS

Principal Investigator: Amber Saeed

*Co-Investigators: Azra Murtaza, Fazilat Farooq, Qurat-ul-Ain
Students of Optometry, The University of Faisalabad*

Introduction:

Refractive errors are the world foremost cause of visual impairment arises due to eye inability to focus light on retina. Spectacles are considered as the easiest and most comfortable way of managing refractive errors while contact lens are also used for correcting refractive error as well as for cosmetic reasons. Our study aims to show the level of knowledge and attitude of society towards spectacles and contact lens.

Objectives:

1. The purpose of the study is to evaluate the level of knowledge, practice and awareness of society towards the use of spectacles and contact lens.
2. This study is also used to check the compliance of contact lens and spectacles use and to underline the problems due to improper use of contact lens and spectacles.

Methodology:

This cross-sectional study was carried out at Agricultural University and Government College University Faisalabad from November 2019 to April 2020. Sample was collected from individuals having age ranging from 15-35 years old. Chi-square technique was used to assess data.

Results:

1. The result showed that 82.2% of the participants were spectacles users while 17.8% are contact lens users.
2. Chi square value for the level of association of different variables was $p < 0.05$. The most common challenges faced by spectacles users was cost and dispensing issues that accounts for about 75% and 74.5% respectively.
3. The most common symptom after spectacle and contact lens use was headache and red eye that accounts for 14% and 82% respectively. 88% of the respondents had problems with contact lens care and handling on daily basis usage.
4. The results showed that participants prefer spectacles over contact lens.

Conclusion:

1. Spectacles were still the most appropriate way to manage refractive error.
2. Most of the participants were unaware of the possible complications caused by contact lens. Awareness of proper use of spectacles in individuals having refractive errors was not sufficient.
3. Eye health education regarding proper use and care of spectacles and contact lens can be done by proper awareness by print and electronic media and by eye care providers.

Keywords: Attitude, contact lens, knowledge, refractive errors, spectacles.

LEVEL OF AWARENESS ABOUT OCCUPATIONAL EYE INJURIES AND USE OF PROTECTIVE EYE DEVICES AMONG BLACKSMITHS

Principal Investigator: Abdus Samad

Pakistan Institute of Community Ophthalmology HMC Peshawar

Introduction :

According to World Health Organization (WHO) in 2010, 285 million people are visually impaired (VI) in which 246 million people have Low Vision and 39 million people are blind. Among these VI subjects approximately 19 million have unilateral visual loss, 2.3 million have bilateral visual impairment and 1.6 million are blind due to occupational eye injuries.

Objectives:

1. To evaluate the level of awareness about occupational eye injuries among blacksmiths.
2. To find out the use of protective eye devices among blacksmiths.

Methodology:

A cross sectional study was conducted between November and December 2019 on 80 blacksmiths in Hayatabad Peshawar. An interview questionnaire was employed to assess the level of awareness about occupational eye injuries and use of protective eye devices. All data was analyzed by using SPSS version 17.

Results:

1. 71 (88.8%) of the blacksmiths were aware of protective eye devices but only 63 (78.8%) were using them.
1. There was an association between educational level and awareness about occupational eye injuries ($p=0.012$). 71 (88.8%) of the blacksmiths were moderately aware about occupational eye injuries, 8 (10%) were low level aware while only 1 (1.3%) were highly aware.

Conclusion:

1. The findings of the study were that blacksmiths were moderately aware of occupational eye injuries but they were not using proper protective eye devices.

Keywords: Awareness, Eye injuries, Protective eye glasses

MATERNAL MALNUTRITION AND ITS ASSOCIATION WITH UN SPACED PREGNANCIES

Principal Investigator: **Mubashira Aftab**

Co-Investigators: Hira Khalid, Ameena Nisar, Javeria Chaudhry, Liaba Naveed, Aaliya Yousaf,
Asifa Afzal, Arshia Bilal
Fazaia Medical College

Introduction:

Maternal Malnutrition is the prime cause of mortality and morbidity in children. Nutritional status of mother has to be evaluated to unmask the cases of maternal malnutrition in Pakistan. As the literature review revealed that no study has been conducted on association of un-spaced pregnancies to maternal malnutrition particularly in Pakistan, therefore the purpose of the research is to look for an association between un-spaced pregnancies and maternal malnutrition through obstetric history and MUAC.

Objectives:

1. Assess the proportion of malnourishment using mid upper arm circumference (MUAC) among pregnant females visiting the tertiary care hospital of Islamabad.
2. Measure the proportion of un-spaced pregnancy among pregnant females visiting the tertiary care hospital of Islamabad.
3. Find out the association between un-spaced pregnancy and maternal malnutrition among pregnant females visiting the tertiary care hospital of Islamabad.

Methodology:

Analytical Cross-sectional study using Non-Probability Convenience Sampling, 50% prevalence of malnutrition among women is calculated out to be 97 but we inflated the sample size up to 120. Study was conducted at PIMS hospital Islamabad, PAF hospital.

Results:

1. According to our study i.e. analytical cross-sectional relation of all the variables with the independent variable i.e. birth spacing between last pregnancies and the dependent variable i.e. maternal MUAC is statistically insignificant except BMI which shows statistically significance with maternal MUAC.

Conclusion:

1. The independent variable i.e. birth spacing between last pregnancies and the dependent variable i.e. maternal MUAC is statistically insignificant except BMI which shows statistically significance with maternal MUAC.

Keywords: Malnutrition, un spaced pregnancy, low birth weight, maternal MUAC.

MISUSE OF ANTIBIOTICS, PAINKILLERS AND OTHER MEDICATIONS AMONG JUNIOR MEDICAL STUDENTS, PARA-MEDICAL & NON-MEDICAL PROFESSIONALS AND PATIENTS AT ANMC&H

Principal Investigator: Ibtesam-e-Fajar

*Co-Investigators: Mehreen Jamil, Kainat Qasim, Misbah Aurangzeb, Rameen Zahra
Al Nafees Medical College, Isra University Islamabad campus*

Introduction :

Anti-microbial resistance and increased tolerance to painkillers is very harmful. This over the counter medication should be stopped to avoid the excessive use and self-medication in our population.

Objectives :

1. To identify the misuse in terms of self-medication and excessive use of antibiotics, painkillers and other medications by junior medical students, para-medical and non-medical professionals and patients at ANMCH.

Methodology:

A descriptive cross-sectional survey conducted at ANMC, Islamabad from selected candidates that fulfilled the inclusion criteria (i.e. junior medical students, para-medical & non-medical professionals and patients that were presented at ANMCH). After data collection it was entered in SPSS v25 for statistical analysis in terms of frequencies and percentages.

Results:

1. Out of 304 participants 77% (n=234) use self-medication in which 63% (n=193) take pain killers and 32% (n=98) take antibiotics without prescription mostly 30% (n=95) take prophylactically.
2. 37% (n=113) participants usually don't complete the antibiotic course, 48% (n=145) said they immediately stop the antibiotic just after getting relieved. 47% (n=145), 38% (n=118) said antibiotics play role in viral infections.
3. About 63% (n=200) said that antibiotic is effective in common cold, sore throat, diarrhea and cold with green mucous.

Conclusion:

1. Most of our candidates use self-medication, they buy, store and use medicines like painkillers and antibiotics without prescription at home for minor illnesses like headache, cough, fever etc. and mostly they leave the medication before the completion of the course right after the symptoms are relieved.

Keywords: Self-medication, antibiotics, Medicine

PROJECT PROTOLANGUAGE; NEWBORN BABY'S CRY IS A LANGUAGE

Principal Investigator: Ahmad Yar Sukhera

Co-Investigator: Syma Ghayas, Hina Zamir, Rukhsar Javed, M. Iqbal
Hamdard University, Karachi

Introduction :

Why do babies cry a lot? It might reassure you to know that research shows newborn crying is not emotional, it comes from the communication areas of the brain, so the babies are not sad when they are crying. They are just trying to tell you something. Typically, what we have seen the parents doing is that immediately pick up the baby and start rocking them, instead of really getting down the root cause that's why baby is crying. Rocking vigorously can cause abusive head trauma (AHT), commonly known as shaken baby syndrome (SBS) especially when caregiver become frustrated due to the child crying. The research suggests that educating parents about the child crying is beneficial in decreasing the rates of child abuse.

Objective :

Our objective is to develop a comprehensive digital guide to teach young mother

1. 5 Types of cry and what these mean
2. 5 methods to calm down a crying baby
3. The spiritual aspect of pacifying a crying baby

Methodology:

We thoroughly reviewed authentic published literature on the newborn crying and sum up all the scientific findings in two 10 by 10 inches charts and an A4 size 3 leaflet pamphlet to educate mothers.

Results:

We find that as crying elicit the Valsalva reflex which negatively impacts baby's sucking pressures & results in poor feeding. Also, the cortisol level rise during crying along with the blood pressure. Increased blood pressure effect on the cerebral blood flow & intracranial pressure which leads to intracranial hemorrhages, foramen ovale shunting, obstructed venous return and quick inspiratory gasp. So, it is very necessary to pacify a crying baby without harming them.

Conclusion:

Educating the mothers about this strange language of new-born can decrease the risk of shaking baby syndrome and abusive head trauma.

Key words: New born cry, Shaking baby syndrome, Abusive head trauma, Cry and Calm charts, protolanguage

AWARENESS AND REPORTED COMPLAINTS REGARDING OCCUPATIONAL HEALTH HAZARDS AND PERSONAL SAFETY PRACTICES AMONG AUTOMOBILE REPAIR ARTISANS OF KARACHI

Principal Investigator: **Mehmood Ishaq**

Co-Investigators: Muhammad Azeem, Ghazal Fatimah, Nimrah Riaz, Abdul Mateen, Sidrah Tahir

Hamdard College of Medicine & Dentistry, Hamdard University, Karachi

Introduction :

Occupational health and safety are very necessary in all works of life in order to avoid hazards and risks. The International Labor Organization (ILO) reveals that every year about 270 million work associated accidents are recorded worldwide, following the death of nearly two million people.

Objectives :

1. To Assess the awareness of occupational hazards among automobiles repair artisans in Karachi.
2. To assess the health-related illness among automobile repair artisans.
3. To find out the possession and use of personal protective equipment among automobile repair artisans.

Methodology:

A cross sectional, institutional based study was conducted between March to October 2019 among Karachi automobile artisans using convenient sampling technique. A questionnaire was designed using existing literature. Data was analyzed in SPSS. Descriptive statistics was used to summarize the data.

Results:

1. Out of the 355 artisans, 269(78.5%) were between 16 and 35 years of age; 114(32.1%) were motor mechanics, 82(23%) car painter, 49(14%) car dent repairs and 43(13%) car electrician. Only 55% agreed that there is a risk to health.
2. Occupation related health issues include 61.6% had complain of foreign body/injury to eye, 53.2% had complain of bruise by impact of heavy object, 60.6% had complain of cuts/injuries by sharp metals, 51.3% had complain of burns, 28.5% had complain of back pain.
3. Almost 99% of the participants use no safety measures during work.

Conclusion:

1. The study shows that automobile artisans had a low-level awareness and reported many concerns of occupational health hazards.
2. Preventive initiatives are recommended through legislation and education.

Keywords: Occupational health, Personal Protective Equipment, Protective Devices

PREVALENCE AND CAUSES OF VISUAL IMPAIRMENT AMONG INDOOR DIABETIC PATIENTS AT TEACHING HOSPITAL OF RAWALPINDI

Principal Investigator: **Muhammad Shafeh Shehzad**
Co-Investigator: Muhammad Usayd Khan, Saqib Jan Shah
Islamic International Medical College, Rawalpindi

Introduction:

Diabetes Mellitus is a multifactorial disease responsible for many complications including visual impairment. Our data will be valuable for future correlations.

Objectives :

1. To report on the prevalence and causes of visual impairment among the indoor diabetic patients of a teaching hospital of Rawalpindi.
2. To assess the effect of associated risk factors on incidence and progression of visual impairment.

Methodology:

In this cross-sectional/observational study, all the ambulant diabetic patients admitted at PRH from November 2018 to November 2019 were included. History and clinical data were noted on structured questionnaires. Detailed ophthalmic examination was performed. The data was evaluated using SPSS version 21. Chi-square statistics was used to assess associations. The Confidence level (CI) of 95% was set. A p-value of <0.05 was considered statistically significant.

Results:

1. 200 indoor diabetic patients were included in the study. There was partial sight in 97 patients and blindness was recorded in 65 patients.
2. Among the causes, cataract was the major cause found in 63 patients, diabetic macular edema in 35, age-related macular degeneration in 7, glaucoma in 2. Diabetic retinopathy was found in 55.
3. Visual impairment was significantly associated with age, duration of diabetes, BMI, hypertension, heart disease, peripheral neuropathy and pregnancy ($p<0.05$). Visual impairment was also significantly associated with the above-mentioned causes ($p<0.05$).

Conclusion:

1. There is a high prevalence of visual impairment among diabetic patients in our study,
2. Also, there is an increased risk of visual impairment with the associated risk factors.

Keywords: Diabetes Mellitus, Prevalence, Etiology, Vision disorders.

PREVALENCE OF AND HEALTH BELIEFS REGARDING OBESITY AMONG DOCTORS IN PESHAWAR

Principal Investigator: Maryam Hayat

Co-Investigators: Mahnoor Naveen, Almas Khattak
Northwest School of Medicine (NWSM) Peshawar, Pakistan

Introduction:

Obesity is a condition in which there is an excess accumulation of fat in body.¹ It is generally defined as body mass index (BMI) of $> 30 \text{ kg/m}^2$. It is important to be able to have an accurate assessment of the prevalence of obesity among healthcare professionals to better counsel their patients about obesity and its effects.

Objectives:

The aim of this study was

1. to estimate the prevalence of obesity among doctors
2. to study the health beliefs of doctors regarding obesity.

Methodology:

A cross sectional study was conducted in four tertiary care hospitals of Peshawar and 164 doctors participated in the study conveniently selected. Ethical approval was obtained from the ethics committee of NWSM. The Health Belief Model was used to assess doctors perceived susceptibility, severity, benefits and barriers regarding obesity and its control. Data were analyzed using SPSS 24.

Results:

Mean age of doctors was 30.21 ± 8.8 years (Min. 22, max. 68 years) with 57% males and 43% females. The mean BMI was $26.17 \pm 4.7 \text{ kg/m}^2$. 43% of doctors were overweight ($\text{BMI} > 25 \text{ kg/m}^2$) while 18% were obese ($\text{BMI} > 30 \text{ kg/m}^2$). The doctors' health beliefs showed higher perceived susceptibility (98%), while only 29% perceived severe obesity (Males > Females). Similarly, 97% perceived greater benefits of obesity control while 30% perceived greater barriers to control their obesity.

Conclusion:

Obesity is quite prevalent among doctors in Peshawar (almost 61% of doctors are either obese or overweight). Almost all of the doctors have higher perceived susceptibility to obesity and perceived benefits of losing weight, however, majority have no perceived severity of diseases due to obesity and no perceived barriers to losing weight.

Keywords: Obesity, Prevalence, Health beliefs

PREVALENCE OF RISK FACTORS FOR HEPATITIS C IN PATIENTS PRESENTING IN ALLIED HOSPITALS OF RAWALPINDI MEDICAL UNIVERSITY

Principal Investigator: Ahmed Salman

Co-Investigators: Sunbul Ibrahim, Daneyal Arshad
Rawalpindi Medical University

Introduction :

Pakistan is facing an epidemic of hepatitis C in the country. Almost 10 million people are affected with hepatitis C in Pakistan. Since no effective vaccine against HCV infection is available, reducing the spread of the disease relies on primary prevention activities that can cut the transmission routes and reduce or eliminate the risk of acquiring infection.

Objectives :

1. To describe the risk profile of patients with hepatitis C virus (HCV) infection presenting in a tertiary care hospital
2. and to identify the most prevalent risk factors.

Methodology:

This case series study was conducted in Holy Family Hospital and Benazir Bhutto Hospital Rawalpindi over a period of six months from 01 January to 30 June. Study population included patients presenting in Medicine OPD, Medicine Wards and Hepatitis clinic. Using a structured questionnaire, all patients with confirmed HCV infection were interviewed about the risk factors. Patients who were suspected of having HCV infection without positive serological proof were excluded. Variables like age, gender, occupation and various known means of transmission were noted. Data was entered using SPSS v23. Descriptive statistics were applied and chi square test was used.

Results:

Among the 215 patients studied, blood transfusion in the past year was the primary risk factor in 34.9%, occupational exposure in health care in 2.8% and intravenous drug abuse setting in 2.3%. 49.3% had history of exposure to known nosocomial risk factors (minor surgery, dental extraction) and 3.2% had history of prison stay. Body piercing and tattooing was present in 57.2% of the study population, males were more likely to have tattooing while females were more likely to have body piercings.

Conclusion:

1. A careful history investigation has identified body piercing and tattooing, blood transfusion, nosocomial exposure, IVDU and occupational exposure as the most prevalent risk factors for HCV infection in our setting.
2. Preventive activities should focus on control measures for the most prevalent risk factors.

Key words: Hepatitis C, Relative prevalence, Risk factors, Rawalpindi

PREVALENCE, ECONOMIC BURDEN AND MANAGEMENT STRATEGIES USED FOR DENGUE PATIENTS IN MARDAN MEDICAL COMPLEX, KP, PAKISTAN (DENGUE SEASON 2019)

Principal Investigator: Awais Qasim

*Co-Investigators: Muzamil Shah, Yahya Khan, Riaz Uddin, Aliya Khalid, Tahir Hussain
Abdul Wali Khan University Mardan, Mardan*

Introduction:

The dengue virus causes fever known as dengue fever (DF), followed by dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS). DHF is characterized by capillary leakage while DSS cause systemic collapse. Dengue fever is fatal disease which is considered the substantial cause of financial problem. Dengue fever is placed among the top emerging viral diseases spread by mosquitoes, on the basis of both infection and mortality.

Objectives :

1. To conduct a survey regarding the seasonal trend and economic burden of dengue on local population who visited Mardan Medical Complex with dengue complaints.

Methodology:

Current study was conducted in Mardan Medical Complex (MMC). Total 2485 dengue suspects (1669 males and 533 females) visited Dengue Section MMC Mardan during summer season. Diagnosis of suspected patients were done by Immuno-Chromatography Technique (NS1 and IgG & IgM). The frequency of dengue cases, ratio of male to female patients and management strategies used, were assessed in the study. The overall economic burden of dengue on MMC were calculated.

Results:

1. Total suspected cases were 2485 (100%) out of which 347 (13%) patients were diagnosed positive for dengue.
2. Among positive 347 (100%), male patients were 271 (78%) while 76 (21%) were females.
3. Dengue costed total PKR. 19,91,777. The cost for clinical laboratory diagnosis was PKR.71,777 while the management strategies used for hospitalized patients costed PKR.1920,000.

Conclusion :

1. It is concluded that the prevalence of dengue was low in Mardan as compared to other regions.
2. The management strategies were good and all the patients were successfully recovered.

Keywords: Dengue, Suspects, Chromatography, NS1, IgG & IgM.

RELATIONSHIP OF LUMINANCE, WORKING DISTANCE & POSTURE WITH MYOPIA AMONG MALE STUDENTS OF MADARIS

Principal Investigator: Shamim Akhter

*Co-Investigator: Sidra Iqbal, Mariam Asalm,
School of Optometry, The University of Faisalabad*

Introduction :

To assess and correlate working distance, head posture and luminance with Myopia among students of Madaris.

Objectives :

1. To find association of posture with myopia.
1. To find association of working distance with myopia.
2. To find association of luminance level with myopia.

Methodology:

Cross Sectional study was conducted from November 2019 to January 2020 in Small Religious Schools of Faisalabad; Pakistan. 200 male students aged 7 to 18 years were included in this study through non-probability Purposive sampling technique. All subjects underwent standardized eye examination including visual acuity in log units, objective and subjective refraction in Spherical equivalent (SE). Illumination level at work place was measured in Lux using Photometer and Posture was evaluated measuring Reid's line (neck angle) after ensuring ethical considerations according to Declaration of Helsinki. Results of this study were analyzed using SPSS latest version.

Results:

A significant correlation was observed between light intensity and SE ($F(28) = 60.86, P < 0.0001$) and Posture ($F(4) = 8.87, P < 0.0001$) in contrast to working distance ($F(20) = 2.23, P > 0.0001$).

Conclusion:

1. Posture and luminance have a strong relationship with Myopia while working distance has a weaker association.
2. Daily exposure to 40,000 lux almost may prevent the onset of myopia along with posture maintained. Identification of factors associated with Myopia prevalence will help to control Myopia Progression.

Key words: Myopia, Objective Refraction, Posture, Retina, Reid's line, Subjective Refraction.

RISK OF DEVELOPING TYPE-2 DIABETES MELLITUS AMONG STUDENTS OF RAWALPINDI MEDICAL UNIVERSITY & ITS ASSOCIATION WITH PHYSICAL ACTIVITY

Principal Investigator: Umm e Rubab,

Co-Investigators: Adeela Komal, Daneyal Arshad, Ali Nawaz, Muhammad Owais Mustafa, Rawalpindi Medical University, Rawalpindi.

Introduction:

Obesity, poor diet pattern, family history and lack of physical activity are some of the risk factors for Diabetes Mellitus Type-2. Finnish Diabetes Risk Score (FINDRISC) & International Physical Activity Questionnaire (IPAQ) are non-invasive tools to measure the Risk of Diabetes and Physical Activity respectively.

Objectives :

1. Assessing the Risk of Developing Type-2 DM using FDRS
2. Assessing association of Risk Score with Physical Activity using IPAQ

Methodology:

This descriptive cross-sectional study was conducted at Rawalpindi Medical University after obtaining ethical approval from IRF. 300 Students of 5-Year MBBS were included in the study and were sampled via Stratified Systematic Random Sampling. Students diagnosed with Type-1 or Type-2 DM and taking medications were excluded. Online Performa was used for data collection. Data Entry and Statistical Analysis was done using SPSS v23.0.

Results:

Data from 300 participants was collected via online form. Waist Circumference and BMI were found to be high in participants with high risk score. Family history was positive in around 40% of the students. Only 20% of students reported exercising regularly. It was found that 13% of the students were in moderate risk group 8% of students were in high risk group. Students in the high-risk group reported low physical activity scores on the IPAQ.

Conclusion:

Waist measurement is the better way to assess the obesity and predict the association with diabetes. Family history was also positive among most of the students. Modifiable factors, such as diet and physical activity should be controlled to reduce the risk of developing Type-2 DM.

Keywords: Diabetes Mellitus, Physical Activity

SELF-MEDICATION WITH ANTIBIOTICS AMONGST UNDERGRADUATE STUDENTS OF PESHAWAR, PAKISTAN

Principal Investigator: Shaharyar Khan

Co-Investigators: Muhammad Daniyal, Muhammad Khubaib Peshawar Medical College

Introduction :

Self-medication is defined as obtaining and consuming drugs without the advice of a physician. In Pakistan, almost every pharmacy sells drugs without a prescription. There is paucity of literature regarding self-medication in Pakistan. So, we conducted this study to highlight issues relating to self-medication with antibiotics in this region of Pakistan

Objectives :

1. To determine the frequency of antibiotics self-medication amongst undergraduate students of Peshawar by gender and study group.
2. To identify the level of awareness among them.
3. To identify the diseases and causes for which antibiotics were self-medicated.
4. To identify the commonest antibiotic used for self-medication.

Methodology:

A cross-sectional descriptive study was conducted at 4 undergraduate institutes of Peshawar. A pilot study was conducted in one of the institutes, collected data analyzed and collection tool refined accordingly. Study was conducted from 11th Dec' 18 to 28th Feb' 19 and a sample size of 382 was calculated. Data was collected using a structured questionnaire. Ethical approval was taken from Institutional Review Committee. Permission to collect data was taken from the heads of respective institutes and informed consent was taken from the participants. Data was analyzed using SPSS ver.23.

Results:

1. Total of 400 participants, 27.0% medical and 35.5% non-medical students self-medicated with antibiotics; Out of which 59.7% were male and 40.3% were female.
2. Sources of antibiotic knowledge were pharmacists (32.3%), relatives (22.6%), friends (8.1%), medical books (7.3%), internet (5.7%) and 24.2% had other sources.
3. 63.7% knew about the side effects of antibiotics.
4. Self-medication was preferred because of transport problems (15.3%), no confidence in health professionals (13.7%), unavailability of health facilities (8.9%), financial problems (4.0%) and 58.1% had other reasons.
5. Throat infection (41.1%) was the commonest cause of self-medication. The commonest antibiotic used was Penicillin's (46.0%).

Conclusion:

1. Significant number of undergraduate students were involved in self-medication with antibiotics disregarding the bad effects it may cause.
2. Our findings may have major public health policy implications in Peshawar.

Key words: Antibiotics, self-medication, undergraduate

SMARTPHONE SCREEN EXPOSURE DURATION AND ITS ASSOCIATION WITH SLEEP QUALITY

Principal Investigator: Daneyal Arshad,

*Co-Investigators: Usaid Munir, Sadaf Fatima, Noor Khalid, Anser Ikram Rishi, Gulfam Khan,
Faheem Bukhari
Rawalpindi Medical University, Rawalpindi*

Introduction :

Over usage of smartphones has led to various deteriorating effects including poor sleep quality. Screen Exposure, especially near bed time directly leads to poor sleep quality. Sleep Quality refers to the satisfaction of one's satisfaction of experience, integrating aspects of sleep initiation, sleep maintenance, quantity and refreshment upon awakening.

Objectives :

1. To Assess Smartphone Screen Exposure Duration.
2. To Assess Sleep Quality using PSQI.
3. To evaluate association between Smartphone Screen Exposure Duration & Sleep Quality.

Methodology:

This descriptive cohort study was conducted among 125 students of MBBS at Rawalpindi Medical University for a period of 1 Month (4 weeks). Participants were sampled using Non-randomized Consecutive Sampling. Physically healthy students with an Android Smartphone were included in the study. Students with Diagnosed Insomnia or other sleep disorders and students taking sleep medication were excluded from the study. Smartphone Screen Exposure Duration was recorded using smartphone application "StayFree". Sleep Quality was assessed at the end of 4 weeks using PSQI questionnaire. Data Entry & Analysis was done using SPSS v23.0.

Results:

1. For each participant, total and average screen-time were computed over 30-day windows. Linear regression analysis revealed that longer average screen-time was associated with decreased sleep quality.

Conclusion:

1. These findings on actual smartphone screen-time build upon prior work based on self-report and confirm that adults spend a substantial amount of time using their smartphones.
2. Exposure to smartphone screens, particularly around bedtime, may negatively impact sleep.
3. This in turn can result in daytime lethargy and other physical and mental manifestations.

Keywords: Sleep Quality, Smartphone, Screen Time

STUDY OF LIFESTYLE DISEASE RISK FACTORS AMONG SCHOOL GOING ADOLESCENTS

Principal Investigator: Azeema Noor

Co-Investigators: Ammara Javed, Mahnoor Naeem
Islamic International Medical College Rawalpindi

Introduction:

The rising burden of lifestyle disease in adults is a global challenge with the risk factors being present earlier in life.

Objectives:

1. To compare the lifestyle disease risk factors between adolescents of private and government schools.

Methodology:

Cross-sectional study conducted among 600 adolescents, 300 students each from government and private secondary schools of Rawalpindi and Islamabad using purposive sampling. To calculate BMI, height and weight were measured. Diet, physical activity, screen time, family history of lifestyle diseases and active passive smoking were surveyed and compared between adolescents of private and government schools.

Results:

1. Out of 600 participants, 81% overweight belonged to private school.
2. Daily consumption of fruits and vegetables was 60% in private and 40% in government.
3. 54% of students who had daily intake of dairy products belonged to private school while 46% to government school.
4. Students who had weekly meat intake were 56% in private and 44% government schools.
5. Daily and weekly intake of fast foods was 54% in private and 46% in government school students while students who had daily and weekly consumption of soft drinks were 67% from private and 33% from government school.
6. Students performing Daily physical activity were 45% private and 55% government.
7. 55% students who had screen time of more than 2 hours belonged to private while 45% belonged to government schools.
8. Family history of lifestyle diseases more significant for government school students.
9. 8% students from private and 7% from government schools were smokers.
10. 20% from private and 24% from government schools gave history of passive smoking.

Conclusion:

1. The study indicates that majority of risk factors are found in private school students.

Keywords: Lifestyle disease, Risk factors, Adolescents

TEMPORAL TRENDS IN PREVALENCE OF HEPATITIS B, HEPATITIS C AND HUMAN IMMUNODEFICIENCY VIRUS IN BLOOD DONORS OF PAKISTAN

Principal Investigator: Ansar ullah

*Co-Investigators: Muhammad Ateeq ur Rehman, Hizbullah, Atifa Shuaib
Medical University, Rawalpindi.*

Introduction :

A Transfusion transmitted infection (TTI) is a virus, parasite, or other potential pathogen that can be transmitted in donated blood through a transfusion to a recipient. Hepatitis B, hepatitis C, Human Immunodeficiency virus are common examples of TTIs.

Objectives :

1. To determine the temporal trends in prevalence of HBV, HCV and HIV in blood donors of Pakistan over the last 14 years

Methodology:

A retrospective study was carried out in the blood donors who donated their blood at Pakistan Institute of Medical Sciences (PIMS) Islamabad. Blood samples were screened for HBV, HCV and HIV over a period of 14 years from 2005 to 2018. Blood donors were selected according to the WHO criteria for blood donation.

Results:

1. A total of 312320 individuals donated blood between 2005 and 2018 out of which 311476 (99.7%) were males and only 991(0.3%) were females.
2. The number of annual blood donations increased from 7829 In 2005 to 30731 in 2018.
3. The total number of donors found positive for HBV, HCV and HIV was 5752, 8951 and 124 respectively.
4. Along the study period a slight increase in HBV prevalence of 1.225% in 2005, to 1.451% in 2018 was observed.
5. Meanwhile the prevalence of HCV decreased from 2.25% to 1.474%.
6. an alarming increase was observed in the prevalence of HIV. Its prevalence was 0% in 2005, 0.006% in 2006 and reached 0.065% 2018.

Conclusion:

1. The study has shown that HCV is the most prevalent transfusion transmitted infection found in Pakistan blood donors.
2. HIV has the lowest prevalence but has shown the highest increase over the course of the last 14 years i.e. by a factor of 11.
3. A net decrease was observed in the prevalence of HBV while HCV showed an increased prevalence.
4. The results show that there is a need to take safety measures to control the increasing prevalence of TTIs in the Pakistani population.

Keywords: Hepatitis b, hepatitis C, virus, blood donor

THE BIG FIVE PERSONALITY TRAITS POSSESSED BY SCHOOL GOING DOWN SYNDROMES IN ISLAMABAD AND RAWALPINDI

Principal Investigator: Ibtesam-e-Fajar

Al Nafees Medical College, Isra University Islamabad campus

Introduction :

Down syndrome is the most common chromosomal. A vast and complicated aspect of any individual is his personality. With the passage of time Down syndromes have become an important and competent part of the society, hence we need to assess their personality traits to be able to understand them and deal with them more efficiently and effectively.

Objectives :

1. To identify the big five personality traits found in school going down syndromes in Islamabad and Rawalpindi.

Methodology:

A descriptive cross-sectional survey conducted at special children schools in Islamabad and Rawalpindi. A questionnaire was designed including ten item personal inventory to assess big five personality traits and was filled by the parents that fulfill the inclusion criteria i.e. school going down syndromes and residents of Islamabad and Rawalpindi, in an interactive counselling session. After data collection it was entered in SPSS v25 for statistical analysis in terms of frequencies and percentages.

Results:

1. Our survey states that about 95% (n=42) down syndromes are extroverts, about 60% (n=27) of down syndrome have conscientiousness personality, and 40% (n=17) down syndromes are open to new experiences.
2. About 18% (n=8) of down syndromes have agreeable personality and only 4% (n=2) of down syndromes are emotionally stable.

Conclusion:

1. Down syndromes are extroverts they enjoy social interactions.
2. We need to work on their vocabulary, sentence formation, pronunciation to polish their communication skills, and they need counselling sessions to make them emotionally stable and more agreeable.

Keywords: Personality, Down Syndrome, Neuroticism, Extroversion

The Perceptions of Mental Health Specialists Regarding Application of Animal-Assisted Therapy in Pakistan

Principal Investigator: Amna Tahir

Co-investigator: Maryum Abdullah

Peshawar Medical College, Peshawar

Introduction :

Animal-assisted therapy or AAT is a goal-oriented, planned, structured, and documented therapeutic intervention directed by health and human service providers as part of their profession. In 1792 the New York Retreat, a mental asylum in England, was the first to use animals as a therapeutic agent. Research has shown that use of AAT leads to improvement in overall health by helping in enhancing self-esteem, reducing blood pressure, and living a longer life. According to our knowledge, AAT is not currently in use in Pakistan.

Objective :

1. To assess the perception, potential benefits and perceived barriers in the application of Animal-Assisted Therapy.

Methodology:

This phenomenological qualitative study was conducted over a period of 2 months from January till February 2020. Data was collected from psychologists and psychiatrists working in Peshawar via individual interviews. Purposive sampling was carried out and the study included 10 psychiatrists and 11 psychologists. The interviews were recorded and transcribed, and thematic analysis of the transcripts was done.

Results:

Most mental health experts (n=15) were completely unaware about AAT. Potential benefits of AAT identified by the participants included reduction in depression, stress, intrusive thoughts and loneliness. Religious, ethical or cultural barriers, particularly associated with the use of dogs, were identified to be a major barrier in the application of AAT in Pakistan, by 42% of the participants. The other major barrier was identified to be lack of awareness or education among people or the patient's perception regarding AAT. Zoonotic infections were believed to be a major risk by 33% followed by physical harm caused by the animal. 42% of the participants were unable to identify any risks of AAT. Most participants (71%) were not willing to consider AAT as treatment option in their work place, reasons majorly being that the experts were not animal friendly themselves, or the patients' unwillingness. Only 30% of the experts were willing to offer AAT if given the opportunity.

Conclusion:

1. There is a general lack of familiarity about the concept of AAT
2. And is believed to be a non-existent practice in Pakistan

Keywords: Animal Assisted therapy, complementary therapies, psychiatrist, psychologist,

TREND ANALYSIS OF COMMON DISABILITIES AND CAUSES AMONG IN-PATIENTS OF PARAPLEGIC CENTER PESHAWAR DURING LAST FIVE YEAR

Principal Investigator: Danyal Ahmad

Co-Investigators: Akhtar Zada, Maaz Hassan, Jibran Zamir, Danyal Khattak, Tanveer Ali Khan, Manzoor Illahi, Muhammad Uzair Gul, Asif Raza, Mujahid, Syed Owais Ali Shah, Kamil Qadeer
Peshawar Medical College, Peshawar.

Introduction:

According to WHO over a billion (about 15%) people of world population have some form of disability. Among which 110 million (2.2%) people have significant difficulty functioning, while 190 million people (3.8%) have severe disability including quadriplegia, severe depression and blindness (Stephen Thompson 2017)

Objectives:

1. To assess the trend of common disabilities in paraplegic Centre Peshawar during last 5 years.
2. To assess the trend of common causes of disabilities in Paraplegic Centre Peshawar.
3. To assess the association of age, gender, residence & occupation with the common disabilities.

Methodology:

A retrospective study was conducted in The Paraplegic Centre Peshawar irrespective of age and gender to assess the common disabilities, causes and which gender, age and occupational group is more susceptible in the patients presented during last 5 years. The Data was collected manually through chart review. The data was collected from 600 charts. All relevant data will be recorded and analyzed using the SPSS 19.0 Software package.

Results:

A total of 500 patients including both Genders of all age groups & profession were included in this study. Male were the most commonly affected gender (77.6%) Followed by Female (22.4%). Disability was found highest among age group 21-30 third decade (33.4%). Disability is common in uneducated people (45.2 %). Among disabilities type paraplegia was most common (79.6%) followed by tetraplegia (20%) & others (0.4%). In all disabilities the most important cause was Fall from height.

Conclusion:

The most commonly affected were male of age group 21-30 (33.4%) most of them were labor belong to District Peshawar and among the disabilities most common cause was Fall from height or weight fallen over common in District DIR. followed by, RTA & Firearm in District Peshawar, Mardan, Charsadda, Swabi.

Keywords: Disability, DALYS, QALYS, Paraplegia, Monoplegia, Hemiplegia, Tetraplegia.

TRENDS IN BODY MASS INDEX AND OBESITY PREVALENCE AMONG SCHOOL GOING STUDENTS WITH DOWN SYNDROME IN ISLAMABAD AND RAWALPINDI

Principal Investigator: Ibtesam-e-Fajar

Al Nafees Medical College, Islamabad

Introduction :

Down syndrome is present in every 1 in 700 births, associated with developmental disability and co morbidities, like obesity which significantly contributes to morbidity and mortality in these children.

Objectives :

1. To identify the trends in body mass index and prevalence of obesity in school going down syndromes.

Methodology:

A descriptive cross-sectional survey conducted at special children schools in Islamabad and Rawalpindi. A questionnaire was designed after literature search and was filled by the parents of the selected candidates according to inclusion criteria i.e. school going down syndromes and residents of Islamabad and Rawalpindi, in an interactive counselling session conducted by authors in collaboration with pediatrician, with parents at respective schools of their child, keeping the questionnaire anonymous. After data collection it was entered in SPSS v25 for statistical analysis in terms of frequencies and percentages.

Results:

1. Our survey included 44 candidates in which majority was between the age group 11 years to 20 years i.e. 52% (n=23) and 27% (n=12) were below 10 years.
2. This survey showed that 43% (n=19) of our selected candidates have low BMI while 27% (n=12) of our candidates fall in normal BMI category.

Conclusion:

1. Most of our selected down Syndromes are protected from obesity as they indulge in different sports, physical activities, physiotherapies and maintain a healthy diet.

Keywords: Body Mass Index, Down Syndrome, Obesity

UNHEALTHY LIFESTYLE AMONG MEDICAL PROFESSIONALS

Principal Investigator: Aleena Hameed

Co-Investigator: Shanza Asif

Islamic International Medical College, Rawalpindi

Introduction:

Unhealthy lifestyle is defined as a lifestyle where a person engages in activities that are detrimental to health. According to WHO, 60 percent of individual health and quality of life variables are associated with lifestyle. During the 20th century the leading causes of death shifted from infectious to chronic diseases. Despite the fact that consequences of unhealthy lifestyle habits are fatal, a high proportion of the population including university students and medical professionals are indulged in such habits.

Objectives:

1. To determine frequency of unhealthy lifestyle among Medical Professionals.

Methodology:

Cross-sectional descriptive study was carried out in Railway General Hospital (Islamic International Medical College, Rawalpindi), CMH/MH (Army Medical College), Holy Family Hospital (RMC, FMDC) for the duration of two weeks (30 September 2019 - 11 October 2019). The sample size of the study was 377. Non probability convenience sampling was used for sample selection. After taking informed verbal consent, a validated self-administered questionnaire was used to collect the data. Data was analyzed on SPSS version 21 and Microsoft excel. Quantitative Data obtained was examined using Non-Parametric Test.

Results:

1. Out of total 283 Medical Professionals, 33% were males 67% were females. The mean age was 22years. Out of the total study population, 77% were physically inactive.
2. 87% consumed fruits, vegetables and dairy products less than recommended.
3. 42.8% were taking junk food more than 2 times a day.
4. 83% were not having their routine annual screening.
5. 39.7% of professionals wanted to change their workplace.

Conclusion:

1. It is concluded that most of the medical professionals had an unhealthy lifestyle.

Keywords: Unhealthy Lifestyle, Medical Professionals

USING THEATRE TO ENHANCE AWARENESS AND UNDERSTANDING OF DEMENTIA IN THE DEVELOPING WORLD

Principal Investigator: Mir Ibrahim Sajid

Co-Investigators: Kaleem Ahmed

Agha Khan Medical College, Agha Khan University, Karachi.

Introduction :

Medi-dramas are written around complex medical cases making theatre an effective way of spreading awareness and knowledge. Dementia is a complex disease with psychosocial and functional impact on the life of a patient and family. In Asia, it largely goes unrecognized. An experiential way to understand dementia and its focus of care is via live performance aimed at increasing awareness of dementia in trainees and families.

Objectives :

1. To gauge the effectiveness of medi-dramas in raising awareness regarding medical dilemma's faced in the society.

Methodology:

The script was written by a practicing geriatric physician and was performed by students in their clinical years. Paper questionnaires were administered to public attendees in the audience and an online survey was administered to a randomly selected group of attendees after the play. Their knowledge and perceptions were assessed and their comments were also noted

Results:

1. 400 people attended the play. 22 participants completed the paper questionnaire while 119 completed the online survey.
2. Over 80% reported that theatrical events can play a role in impacting medical education for diseases especially those related to mental health.
3. Approximately 90% believed that such theatre performances could play a role in improving community awareness.

Conclusion:

1. In the developing world, theatre can help demystify multi-faceted diseases by highlighting key challenges faced by patients and their families.

Key words: Medi-drama, awareness spread, theater use, dementia, dementia care

MEDICAL EDUCATION

Assessment and Comparison of Knowledge and Attitude of Undergraduate Medical and Nursing Students Regarding Early Training of Basic Life Support

Principal Investigator: Omar Nisar

Co Investigators: Sameet Ahmad, Rida Tariq, Sana Waheed, Muneeba Arif, Sanwal Shahzad, Tanzeel Akhtar

Shalamar Medical and Dental College, Lahore

Introduction :

BLS is a set of life saving skills which include cardiopulmonary resuscitation (CPR), bleeding control, artificial ventilation, and basic airway management. Cardiac emergencies are very common in the world and the life of the patient can be simply saved by BLS.

Objectives :

1. To assess the Knowledge and Attitude of Medical and Nursing Students.
2. To compare the Knowledge and Attitude of Medical and Nursing Students.

Methodology:

It is a cross sectional study which was done at Shalamar Institute of Health Sciences, Lahore in which medical Students of 1st year to Final Year and Nursing Students of 1st Year to 4th year were taken as subjects after taking informed consent. Data was collected through Printed Questionnaires and Google Forms. Sampling was Convenient Sampling. Duration of Study was from June to August 2019. Data was analyzed using SPSS Version 21 for Windows.

Results:

1. There were 330 participants from both MBBS and BS Nursing (50 from each class of MBBS and 20 from each class of BS Nursing).
2. The age of the participants ranged from 18 to 30.
3. Out of 330 study subjects only 250 subjects had heard about BLS.
4. Out of 330 participants only 204 had a good knowledge about BLS and 126 had poor knowledge of BLS
5. where a score of higher than 3 out of 7 was considered as good.
6. Knowledge of Medical and Nursing Students was compared and p value came out to be 0.088 which was considered insignificant.
7. Only 34.5% of the participants had learnt BLS by training and only 13.3% of the participants had practically done BLS.
8. Most of the people gave no reason for not attending a training session for BLS.

Conclusion:

1. It was concluded that medical and nursing students had average knowledge of BLS and more attention was needed towards this important live saving skill.

Key words: Resuscitation, Cardiopulmonary, Basic Cardiac Life Support, Life Support, Basic Cardiac

ASSOCIATION BETWEEN BREAKFAST AND ACADEMIC PERFORMANCES AMONG MEDICAL STUDENTS

Principal Investigator: **Muneeba Tehreem**

Co-Investigator: Aneela Shabbir, Sanniah Rizwan, Sobia Zaheer, Aiman Jahangir, Usama

Saadat, Huma Mustehsan
Fazaia Medical College, Islamabad

Introduction :

Breakfast is an important meal of the day which provides energy throughout the day. Skipping breakfast may adversely affect the mental health, learning ability and academic outcome of medical students

Objectives :

1. To determine the effects of breakfast on academic performance of medical students.

Methodology:

The study design was of a cross-sectional descriptive study. The study population consisted of 100 students of Fazaia Medical College from 1st – 4th year M.B.B.S. Data was collected using structured self-administered questionnaire. It comprised of two sections. First section contained inquiries about basic demographic data while the second contained questions regarding breakfast habits of participants.

Results:

1. Out of the 100 survey respondents, 51 % of the students skipped breakfast because they did not have enough time in the morning.
2. 18 % said that they didn't feel hungry and 10 % said that they were watching their weight.

Conclusion:

1. There is an apparent association between breakfast and academic performance. However, when we applied the chi square test of association, the p-value was greater than our chosen significance level ($\alpha = 0.05$), therefore, we conclude that there is not enough evidence to suggest an association between breakfast and academic performance of the students of Fazaia Medical College.
2. A limitation of the study was that dietary information from participants was based on self-report which may have been subject to error, especially underreporting.

Keywords: Breakfast, medical students, academic performance

ASSOCIATION OF PHYSICAL ACTIVITY AND SLEEP QUALITY WITH ACADEMIC PERFORMANCE AMONG FOURTH-YEAR MBBS STUDENTS OF RAWALPINDI MEDICAL UNIVERSITY

Principal Investigator: Tayyab Mumtaz Khan

Co-Investigator: Samia tul Rasool, Sana Mansoor, Syed Jawad Zaidi, Mehwish Kaneez
Rawalpindi Medical University

Introduction:

Medical students face greater academic stress and devote more time to their studies due to the tough nature of medical education, at the cost of sleep and physical activity. Good sleep quality and physical activity improve the mental ability and academic performance of the students.

Objectives :

1. to assess sleep quality and physical activity levels among fourth-year MBBS students of Rawalpindi Medical University.
2. To provide new target areas to improve the academics of students performing below average.

Methodology:

It was a descriptive, cross-sectional study conducted in March 2019 on 344 medical students enrolled in the fourth-year MBBS class of Rawalpindi Medical University. Sleep quality was assessed by the Pittsburgh Sleep Quality Index (PSQI), physical activity levels by the Global Physical Activity Questionnaire (GPAQ), and academic performance by the marks obtained in the most recent pathology class test. The students who could not prepare for the test in the usual manner were excluded from the study. Two-hundred nineteen (219) students were part of the final study sample. Data analysis was performed using SPSS v.22.0.

Results:

1. Sleep quality and physical activity were significantly correlated with academic performance (p-values of the chi-square and t-test were <0.000).
2. Pearson's correlation coefficient was -0.69 for PSQI ($p < 0.000$) and 0.62 for GPAQ ($p = 0.003$) with test scores.
3. Gender showed significant association with sleep and physical activity levels but no association with test scores.
4. Boarders had lower mean test scores and poorer sleep and physical activity indices as compared to non-boarders.
5. The multiple linear regression model was valid (p-value of the F test was <0.000) for sleep quality and physical activity. The R^2 value was 0.84 (84%).

Conclusion:

1. Our study indicates an overall poor sleep quality and physical activity level among fourth-year medical students, particularly boarders, who have lower test scores and worse sleep and physical activity levels.
2. In general, male students have better GPAQ scores and female students have better PSQI scores.
3. Both the PSQI and GPAQ scores are significantly correlated with test scores.

Keywords: Physical activity, sleep quality, Academic performance, 4th year students, PSQI

AWARENESS ABOUT ANIMAL AND PLANT BASED PROTEINS AMONG UNDERGRADUATE STUDENTS OF PESHAWAR MEDICAL AND DENTAL COLLEGE

Principal Investigator: Muhammad Hamza.

*Co-Investigators: Marwan Khan and Muhammad Basit Malik.
Peshawar Medical College*

Introduction:

People of our society generally are more biased towards protein sources of animal origin. We believe that this choice of ours is influenced by our culture and our life style. People of our society usually find animal sources more palatable. Scientific studies show evident harms of proteins of animal origin, and if were to be substituted by proteins of plant origin, would prove to be more beneficial.

Objectives :

To determine the level of awareness of undergraduate Medical and Dental students regarding the plant based and animal-based proteins.

Methodology:

A descriptive cross-sectional study was conducted in Peshawar Medical and Dental College in the month of February. All the students of PMC and PDC were included in the study. Students who were absent on the day of data collection and those were not willing to give the data were excluded. Data would be collected by structured questionnaires and analyzed through SPSS 20.

Results:

1. Among the 315 participants of mean age was about 22 years, 35% were male and 65% were female.
2. 74% of the population preferred sources of animal origin while only 26% preferred sources of plant origin. When presented with a scenario of being presented with meat and beans at the same time 68% chose meat over beans.
3. About 60% people had the misconception that if they were to consume proteins of only plant origin their body would become weak.
4. Similarly, 80% of the students believe that non vegetarians are more prone to develop diseases such as type II diabetes, CVS, Hypertension and high blood cholesterol level while 80% believed that plant sources aren't bad for normal levels of hormones in our body.

Conclusion

1. It is concluded that most of the medical students prefer animal sources over plant sources.
2. Although they were more aware about the problems associated with animal-based protein.
3. There is a need of health education in this regard.

Key words: Students, Medical, Awareness

AWARENESS ABOUT DENGUE FEVER AMONG THE STUDENTS OF PESHAWAR MEDICAL COLLEGE AND PESHAWAR DENTAL COLLEGE

Principal Investigator: Hamza Khan

*Co-Investigators: Ameer Hamza, Anwar Kamal, Nouman Azim.
Peshawar Medical College, Peshawar.*

Introduction :

Dengue fever is a viral infection that starts with mild fever which would reach higher temperature severe headache, pain behind the eyes, muscle and joint pain and rashes. Dengue fever is common all over the world. Dengue virus is a flavi virus that affects hundred million individuals annually. The increase in number of cases of dengue fever needs health seeking behavior and awareness among the public.

Objectives :

1. To determine the level of knowledge of Medical students about the dengue fever.
2. To compare knowledge of preclinical medical students and clinical medical students about the dengue fever.

Methodology:

A descriptive cross-sectional study was conducted in Peshawar medical and dental college from December 2019 to January 2020. Non-probability convenience sampling technique was used. All the students of PMC and PDC were included in the study. Students who were absent on the day of data collection and those who was not willing to give data were excluded from the study. Data was collected through a questionnaire. Descriptive statistics was used to analyze the data.

Results:

Among the 457 respondents, 65% were female and 35% were male of preclinical medical students (1st, 2nd years) and clinical medical students (3rd, 4th and final years) of MBBS and BDS. Almost half of the participants knew that the dengue vector is an Aedes mosquito and 61% correctly answer that the mosquito breed in clean water. Among the students, 81% knew fever as the main symptom, 72% muscle and joint pain and 91% students identified mosquito bite as the main mode of transmission. About 86% students declared covering of all things that contain clean water as the primary prevention strategy.

Conclusion:

1. The level of knowledge of clinical medical students was better as compared to pre-clinical medical students.
2. So, it is concluded that dengue awareness campaigns should be arranged for the medical students in order to improve their level of knowledge about the dengue fever.

Key words: Dengue, Students, Medical, Knowledge.

AWARENESS AMONG UNDERGRADUATE STUDENTS REGARDING THE SIGNIFICANCE OF DOSE ADJUSTMENT IN RENAL IMPAIRED PATIENTS.

Principal Investigator: Sobia Shafqat

*Co-Investigators: Syeda Ailiya Zaidi, Aisha Minhal, Syeda Arshmah Imran, Madiha Mazhar, Safeela Naveed, Halima Sadia, Fatima Qamar
Jinnah University For Women, Karachi.*

Introduction :

Renal elimination and other pharmacokinetics of the drug including absorption, distribution, metabolism and excretion can be affected by chronic kidney disease. Therefore, in renal impaired patients dose adjustment is highly needed for the drugs that are renal excreted. Doses can be calibrated by calculating glomerular filtration rate, creatinine clearance and blood urea nitrogen. The suggested methods of dose adjustment are; increasing the dosing interval, dose reduction or both.

Objectives :

1. To evaluate the awareness among undergraduate students concerning the dose adjustment in renal impaired patients.

Methodology:

We carried a survey-based research study among 100 undergraduate pharmacy students of different organizations including both genders; about their awareness regarding dose adjustment in renal impairment.

Results:

The results we obtained by our survey is that while, majority of the students are aware regarding dose adjustment of some class of drugs including non-steroidal inflammatory drugs, angiotensin converting enzyme inhibitor, however, in other class of drugs such as diuretics, students are unsure regarding dose adjustment in thiazide and loop diuretics, whereas, majority knew about its importance in potassium-sparing diuretics.

Conclusion:

By our survey we concluded that dose adjustment is a major element in chronic kidney disease and majority of students belonging to medical profession are familiar with the concept, however, implementations of such measures should be the key aim in clinical practice and initiatives must be taken to inform the significance of dose adjustment in renal impaired patients.

Keywords: Pharmacokinetics, Glomerular Filtration Rate, Blood Urea Nitrogen.

AWARENESS OF NEEDLE STICK INJURY AMONG HEALTH CARE PROFESSIONALS OF AL-NAFEES MEDICAL COLLEGE AND HOSPITAL, ISLAMABAD, PAKISTAN

Principal Investigator: Muhammad Rafay Khalid
Co-Investigator: Umer Jaleel Rana, Usama Tassaduq satti
 Al-Nafees Medical College and Hospital, Islamabad

Introduction:

Needle prick Injury is very common among health care professionals. This results in many diseases like Hepatitis B and C, HIV and many other chronic diseases.

Objectives :

1. To assess the knowledge and practices about needle stick injuries in health care Professionals of AL-Nafees Medical College and Hospital, Islamabad.

Methodology:

The study is descriptive cross-sectional study. Research is conducted at AL-Nafees Medical College and Hospital, Islamabad, from 1st January 2020 to 30th January 2020. We distributed 126 questionnaire forms containing questions about knowledge and practices of needle stick injury among health care professionals. The results are then analyzed by SPSS version 23.

Results:

1. Among 126 participants, 50(39.6 %) were staff nurse and 76 (60.3 %) were doctors.
2. The mean age $\pm$ SD of participants was 26.9 ± 5.41 .
3. There were 46 (36.5%) male and 80 (63.5%) female participants.
4. The level of knowledge of needle stick injuries was low among 11 (8.7%) of participants, moderate among 40 (31.7%) and high among 75 (59.5%) of participants.
5. The mean knowledge and practice score were highest among doctors then staff nurse.

Conclusion:

1. The knowledge and practices for prevention and management of needle stick injuries among health care professionals is inadequate, indicating a need to conduct awareness programs in order to reduce the prevalence of needle stick injuries in hospitals.

Keywords: Knowledge, Practices, Needle Stick Injury.

CAN YOU TRUST THE LEARNER TO PERFORM INDEPENDENTLY? DETERMINING ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR ENTERING HOUSE JOB.

Principal Investigator: Sharjeel Mahmood

Co-Investigator: Saad Slah-ud-Din, Syed Muhammad Mahd
Shalamar Medical & Dental College, Lahore

Introduction:

In clinical contexts, competencies are implemented through Entrustable Professional Activities (EPAs) which are observable and measurable. Current study is the first step to determine the Entrustable professional activities (EPAs) for the House Officers.

Objectives:

1. To identify Entrustable professional activities for entering a job.
2. To compare the differences in the selected EPAs among faculty members and house officers.

Methodology:

It is a cross sectional questionnaire-based study consisting of 16 EPAs. The electronic questionnaire was circulated among the house officers and Faculty of Shalamar Medical and Dental College, Lahore using convenient sampling technique. The respondents were asked to grade the EPAs on a scale of 0–4 based on how important they considered that activity as EPA. Chi-square test was applied, p value less than 0.05 was considered significant.

Results:

1. The activities that had an average score of 3 or above and were shortlisted as EPAs for the fresh medical graduates.
2. Thirteen EPAs got a score of 3 from the faculty and 10 by the house officers.
3. There was a significant difference in the selection of following EPAs among faculty and the house officers.

Conclusion:

There was a significant difference in the selection of EPAs among faculty and the house officers. There is dire need to reconstitute the Medical curriculum in line with the competency-based training.

Key words: Medical graduate, Entrustable professional activities, competency-based training, questionnaire.

CARDIO-PULMONARY RESUSCITATION: A CROSS-SECTIONAL STUDY TO ASSESS KNOWLEDGE AMONG HEALTH PROFESSIONALS OF PUBLIC SECTOR TERTIARY CARE HOSPITALS OF PESHAWAR

Principal Investigator: Ali AR Raza Syed

Co-Investigator: Tayyaba, Saima Abid, Ghulam Sarwar Khan
Pak International Medical College

Introduction:

Sudden cardiac arrest is one of the main causes of death in Pakistan. Cardiopulmonary resuscitation (CPR) is lifesaving intervention in such conditions.

Objectives :

1. To assess the knowledge of CPR among health professionals of Public sector tertiary care hospitals Peshawar.

Methodology:

A cross-sectional study conducted from December 2017 to February 2018 in public sector tertiary care hospitals of Peshawar. Sample of 400 health professionals were included through a convenient sampling technique. A questionnaire to test knowledge of cardiopulmonary resuscitation was filled by Health Professionals. Data was analyzed through SPSS version 22.

Results:

1. Among 400 health professionals, 51.4% were female, and 48.6% were male.
2. 45.3% participants were aware of the updated revised guidelines of CPR.
3. 52.4% were aware of who attended training in the last seven years.
4. 1.09% had knowledge who got training before 2005. A total of 65.4% passed, while 36.4% failed the theoretical CPR knowledge-based test.

Conclusion:

1. The current study found that the theoretical knowledge of CPR and its updated guidelines was below average among the health professionals of tertiary care hospitals of district Peshawar.
2. Recent training positively affected the retention of CPR knowledge.

Keywords: Cardiopulmonary Resuscitation, Public Sector Tertiary Care Hospitals, Cross-sectional Study

COMPARISON OF LEVELS OF DEPRESSION IN MEDICAL AND NON-MEDICAL STUDENTS AND POSSIBLE CONTRIBUTING FACTORS

Principal Investigator: **Amen Mobeen**

Co-Investigators: Osama Babar

Islamic International Medical College

Introduction:

Prevalence and frequency of depression have been reported to be significant in medical and non-medical students from all over the world including some of the cities in Pakistan but data specifically from Rawalpindi/Islamabad have not been reported before.

Objectives:

1. Determine Frequency of different levels of depression
2. Association with various social, personal and health related factors.

Methodology:

A cross-sectional self-administered survey was distributed to 380 undergraduate students of different universities in the Islamabad/ Rawalpindi region. Which consisted of medical and non-medical universities. The survey consisted of two sections: Patient health questionnaire (PHQ) 9, a validated depression scale based on 9 DSM-IV depression criteria, for screening of depression and a self-developed questionnaire to explore possible determinants of depression. Survey results were entered in SPSS version 20 for analysis.

Results:

1. 296 students returned the completed survey (response rate=80.00%).
2. In our cohort, 55% were medical students and 45% were non-medical students. 51% of respondents were women.
3. Utilizing threshold of 10, 33% had symptoms suggestive of moderate (Medical 20% /Non-Med 31%), 12.5% had moderately severe (Medical 13%/Non-Med 11%) and 7% (Medical 7%/Non-Med 2%) had symptoms suggestive of severe depression.
4. In both groups, inability to cope with stress ($p<0.05$) and failure to share personal issues with friends and family ($p<0.05$) co-related with presence of depressive symptoms.

Conclusion:

1. Frequency of self-reported depression was found to be high in our cohort.
2. Moreover, the symptoms were more likely to be reported by female students.
3. The findings suggest that students showing symptoms of depression suffer from various social, personal and health related factors

Keywords: Self-reported, depression, frequency.

COMPARISON OF VISUAL SYMPTOMS AFTER READING TEXT FROM HARD COPY AND COMPUTER SCREEN

Principal Investigator: Kainat Syed

Pakistan Institute of Community Ophthalmology, Hayatabad Medical Complex

Introduction:

Although the Technology has become so advanced, the preference towards screen reading is still low. This topic aims to compare the relation between screen inferiority and the visual symptoms.

Objectives:

1. To compare the preference of reading text from computer screen and hard copy.
2. To compare the visual symptoms after computer screen and hard copy reading.

Methodology:

Comparative cross-sectional study was conducted at PICO library from September to December 2019. Total 30 visually normal subjects were included. Each of them was exposed to a hard copy and computer screen reading task with an interval of 24 hours in between, and data concerning their visual symptoms were collected using questionnaires. This data was analyzed using SPSS version 17.0 software.

Results:

1. 23 students preferred computer screen reading with the main reason for preference being, learning satisfaction while 7 students preferred reading from a hard copy with the main reason for preference being, ease in access to the reading material.
2. The mean visual symptom score of those who preferred hard copy reading was higher (26.95) than the mean visual symptom score of those who preferred screen reading (14.28).

Conclusion:

1. The screen inferiority is due to already mindset psychological reasons rather than visual related reasons.
2. The visual symptoms related to screen reading can be overcome in those who prefer screen reading.

Keywords: Preference, Visual symptoms, Hard copy, Computer screen.

COMPLIANCE RATE OF SURGICAL ANTIMICROBIAL PROPHYLAXIS AND ITS ASSOCIATION WITH KNOWLEDGE OF GUIDELINES AMONG SURGICAL RESIDENTS IN A TERTIARY CARE PUBLIC HOSPITAL OF A DEVELOPING COUNTRY

Principal investigator: Syed Muhammad Jawad Zaidi,

Co-investigators: Muhammad Zubair Satti, Muhammad Hamza, Zaina Sajid, Mehwish Kaneez
Rawalpindi Medical University, Rawalpindi

Introduction:

Surgical antimicrobial prophylaxis (SAP) means the administration of antibiotics in surgical practice, and it reduces the likelihood of surgical site infections (SSIs). While developed countries regularly monitor and revise their SAP protocols, there are only a few such researches in developing countries, which is a major setback to proper surgical care.

Objectives:

This study aims to compare the practice of SAP in a tertiary health care hospital of a developing country Pakistan, with internationally recommended protocols and evaluate the impact of knowledge of international guidelines on SAP practice. The results of the study will highlight important shortcomings in prophylactic practice in the hospital and help develop recommendations to improve SAP practice and ensure better surgical care for patients.

Methodology:

An observational, cross-sectional study was conducted in the general surgery unit of Holy Family Hospital (HFH), Rawalpindi, antimicrobial prophylaxis of 150 general surgery procedures was documented on the basis of six international SAP criteria, the compliance rate was calculated for each operating surgical resident. Knowledge of 33 surgical residents was assessed by a formulated questionnaire regarding SAP protocols by six close-ended questions. Data was analyzed by SPSS v 23.

Results:

Seventy-four of 150 observed procedures followed all the six international criteria of SAP, giving a compliance rate of 49.33%. Seventeen out of 33 (51%) surgical residents were aware of the guidelines. A chi-square analysis revealed a highly significant association between the awareness of guidelines and the number of compliant procedures performed by a resident ($p < 0.000$). Forty-five out of 74 compliant procedures were performed by residents who were aware of the guidelines (61% of compliant procedures). The odds ratio for awareness and correct prophylaxis was 4.064 ($p < 0.000$).

Conclusions:

The study indicates an overall low compliance rate of 49.33% regarding surgical antimicrobial prophylaxis (SAP) practice. The most common cause of non-compliance was prolonged postoperative prophylaxis. This study also shows that the knowledge of international guidelines significantly improves the prophylaxis practice by about four times.

Keywords: Compliance, Antimicrobial Prophylaxis, SAP guidelines, Surgical site infections, residents.

EFFECT OF SEVERITY OF DRY EYE DISEASE ON SLEEP QUALITY AND STRESS LEVELS IN STUDENTS OF THE UNIVERSITY OF FAISALABAD

Principal Investigator: Rida Asghar

Co-Investigator: Humna Kazmi, Muniba Raheel

Students of school of optometry, The University of Faisalabad

Introduction:

Dry eye disease is a multifactorial disease which can affect tears production and may damage ocular surfaces of eye and also affect the sleep quality and also raise the level of stress. All subjects underwent corneal examination and tear film assessment and also filled the PSQI and we checked responses about Visual Analog Stress scale.

Objectives :

1. To evaluate sleep quality and stress in patients with dry eye disease
2. Their comparison with normal individuals that do not have dry eye in students of TUF aged 18-24.

Methodology:

This study was carried out at The University of Faisalabad. 100 females were included. The study included dry eye evaluation procedure, sleep quality and stress test. The subjects were divided into two groups. Data was collected by questionnaires. Logistic regression, correlation, T test and chi square were applied. Statistical analysis was performed by using SPSS version 22.

Results:

1. The results of this study showed us that DED demonstrated a significantly higher mean of visual analog stress scale and PSQI global score than controls.
2. Approximately 68% of patients with DED had poor sleep quality compared with only 40% of the control group ($P = 0.003$).
3. The final results showed that dry eye disease significantly correlated with sleep quality and stress levels.

Conclusion:

1. It is suggested from present study that dry eye disease has more effect on sleep quality and stress levels in students as compared to normal individuals.
2. DED patients have less sleeping hours than non DED individuals and also have affected ocular surfaces.

Key words: Dry eye disease, ocular surface defects, sleep quality, stress levels.

EMOTIONAL INTELLIGENCE OF UNDERGRADUATE MEDICAL STUDENTS IN PESHAWAR- A CROSS-SECTIONAL SURVEY

Principal Investigator: **Gulrukh Iqbal**

Northwest School of Medicine (NWSM) Peshawar, Pakistan

Introduction:

Medical education aims to cultivate doctors with a broad range of skills which will ultimately enable them to provide patient care that is clinically sound and emotionally responsive. It has been suggested that emotional intelligence (EI) may be a potentially useful construct in assessing desirable cognitive and non-cognitive abilities or aptitudes in health professionals.

Objective:

To evaluate the emotional intelligence of undergraduate medical students in Peshawar Pakistan.

Methodology:

257 students were conveniently selected from four undergraduate medical colleges of Peshawar. A cross-sectional study was done after ethical approval was obtained from the Institutional Review Board of Northwest School of Medicine. All the undergraduate medical students from 1st to 3rd year MBBS were included in the study. A 60 items Emotional Intelligence Scale developed and validated by Singh in 2004 was used to collect data. Data were analyzed using SPSS 24.

Results:

The mean age of students was 20.78 ± 1.21 years (min. 19, max. 25 years) with male to female ratio 52% and 48% respectively. 66% of students participated from private whereas 34% from public setting medical colleges. Higher emotional intelligence was seen in 89% of undergraduate medical students with female students more likely to have higher EI than males (92.5% females vs. 84.6% males). Higher emotional intelligence was reported in first- and third-year students compared to second year and in public sector medical students than private.

Conclusion:

Undergraduate medical students have overall higher emotional intelligence with slight differences in gender, year of study and institutional setting.

Keywords: Emotional intelligence, medical students, Cross sectional survey

EVALUATION OF EMPATHY AND FATIGUE LEVELS AMID UNDERGRADUATE MEDICAL STUDENTS IN RAWALPINDI AND ISLAMABAD

Principal Investigator: Hafsa Shafique

Islamic International Medical College (Riphah International University Islamabad)

Introduction:

Physician empathy is the ability to cognitively appreciate a patient's perspective and experience and deliver such an understanding back to the patient. Studies associate high physician empathy with improved patient trust and clinical outcomes. Empathy is a skill that can be developed during medical education. A study published in the Journal of Neuroscience relates empathy as function of right supramarginal gyrus of the brain and is dramatically reduced when this portion does not function properly. Previous research indicates empathy erosion during medical school years with greatest decline in the third year. In another study, an inverse correlation between empathy and student burnout levels has been established.

Objectives:

1. To evaluate empathy in medical students and its relation to fatigue levels with special emphasis on mental fatigue.

Methodology:

This study was conducted in 4 medical colleges of Rawalpindi and Islamabad. It is a cross-sectional study involving 250 medical students chosen by convenience sampling method. The Jefferson Scale for Physician empathy- student version (JSPE-student) (score range 20-140) and Multidimensional Fatigue index (MFI-20) (score range 20-100) was deployed via an Apple ResearchKit iOS application** and Google forms. A higher score on both scales indicates higher levels of Empathy and Fatigue. The data was analyzed using SPSS version 24 and Microsoft Excel. Statistical tests including T-test and Pearson Correlation were used where p value < 0.05 is significant and correlation coefficient 'r' is between -1 and 1

Results:

1. Mean score of empathy was found to be 86.28 ± 10.70 (range; 50-116).
2. The empathy in pre-clinical years (88.35 ± 9.38) was found to be greater than clinical years (83.46 ± 11.76) and the difference was statistically significant (p value = 0.0061).
3. The greatest decline in empathy was observed in third year (empathy score 79.67 ± 9.14).
4. Mean score of fatigue was 57.70 ± 5.92 .
5. The fatigue level in clinical years was greater than pre-clinical years and the difference was found to be statistically significant (p value= 0.0000091).
6. There was an inverse Pearson correlation ($r = -0.146$) between empathy and fatigue.

Conclusion:

1. Overall, there is a decline in medical student empathy from preclinical to clinical years and it is most evident in third year.
2. Fatigue is associated with empathy decay.
3. This research carves a way for further study of empathy deterioration and factors responsible for better medical practice.

Keywords: Physician Empathy, Fatigue, Empathy decline

FREQUENCY OF ADULT ATTENTION DEFICIT/HYPERACTIVITY DISORDER AMONG MEDICAL STUDENTS AT IIMC.

Principal Investigator: Aamena Akhtar

Co- Investigators: Aneela Rubab, Mahnoor
Islamic International Medical College, Islamabad.

Introduction :

Attention Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by an individual's inability to pay attention and control impulsive behavior 1 affecting their relations and careers (professional achievements). ADHD can persist into adulthood 2 therefore not limited to children only. Adult ADHD is a misunderstood disorder and many remain undiagnosed in their adulthood. This study aims to screen out the IIMC students at risk of having ADHD which can help them to reach their full professional potential by diagnosing and managing the disorder.

Objectives :

1. To know the frequency of male and female medical students at risk of having adult ADHD.
2. To find common attribute among adult ADHD students (inattention, hyperactivity and combined-type).

Methodology:

It was a cross-sectional descriptive study which was conducted at Al-Mizan campus of Riphah Islamic International University and Railway Hospital from April to May 2019 after approval from ERC. A total of 210 subjects were screened by using Adult ADHD Self Report Scale (ASRS-v1.1) pro forma. Data analysis was done through SPSS version 21.

Results:

The overall prevalence of adult ADHD was found to be 1.2% among the medical students at IIMC with inattention being the predominant attribute. Females (0.8%) were found to be more prone than male students (0.4%) but the difference was insignificant with a p-value of 0.414. The common attribute among males was inattention whereas the combined type i.e. inattention and hyperactivity combined was common among females with a p-value of 0.414.

Conclusion:

It is concluded from the study that some of the medical students were found to be at high risk of having adult ADHD recommending the initiatives for awareness and screening of adult ADHD.

Keywords:

Adult ADHD, frequency, medical students, attributes, screening, hyperactivity, inattention, combined type.

FREQUENCY OF SELF-MEDICATION IN STUDENTS OF PESHAWAR MEDICAL AND DENTAL COLLEGE

Principal investigator: Salma Tila

Co-Investigators: Hina Shams, Aasma Sajawal, Namra Javed, Mubashira Jamil.

Peshawar Medical College, Peshawar

Introduction :

World Health Organization (WHO) defines self-medication as selection and use of medicine by individuals to treat the self-recognized illness and symptoms. Self-medication is a common problem among the university students. Self-medication when practiced correctly reduces the load on medical services, reduces the time spent in waiting to see the physician. But if not use properly than it can increase the risk of unwanted effects of drugs, irrational use of the drugs, wastage of resources and prolonged sufferings.

Objectives :

1. To determine the Prevalence of self-medication among the students of PMC and PDC
2. To determine the reasons for self-medication among the students of PMC and PDC

Methodology:

A descriptive cross-sectional study was conducted through structured questionnaire among 1100 students of Peshawar medical and dental college in a duration of two months. All students of Peshawar medical and dental college were included in the study. Those who were not willing or absent on the day of data collection are excluded from the study. Descriptive statistics was used to calculate the frequency distribution table.

Result:

Among the 389 respondents, 75% were female and 25% were male from students of MBBS and BDS. Out of these, 88% of students was practicing self-medication and 84% found relief from self-medication. Majority of them (64%) were doing self-medication once in a month. Students who were doing self-medication in the form of painkillers were 78%, 72% were practicing self-medication to relieve headache, 52% for fever, 31% as antibiotics and 9% for anxiety/depression. About 61% of the students had the knowledge about contraindications and side effects of drugs and 73% had the knowledge of antibiotic resistance. The main factor which was keeping the students from consulting a physician came out to be that they considered the disease mild (60%).

Conclusion:

As majority of the students are doing self-medication so there is a need of health education in order to increase awareness among the medicine students about the unwanted effects of self-medication.

Key word: Self-medication, students, medical

IMPOSTER SYNDROME AMONG MEDICAL STUDENTS: A MYTH OR REALITY?

Principal Investigator: Khurram Manzoor
Shalamar Medical & Dental College, Lahore

Introduction :

Students suffering from imposter syndrome consider themselves less competent, skillful as compared to the abilities they actually possess. Although previous research has identified different causes of stress and burnout but less research has been conducted to determine the frequency of imposter syndrome among Medical undergraduate students.

Objectives:

1. To determine the frequency of Imposter syndrome among Medical students.
2. To find out the association of Gender with imposter syndrome.

Methodology:

The cross-sectional study was conducted on the 1st and 2nd year MBBS students of Shalamar Medical and Dental College, Lahore. Convenient sampling technique was used. The study instrument is a validated questionnaire (Clance IP Scale) containing 20 items with 5-point likert scale. By adding up the score, the degree of severity is determined. Frequencies & percentages were determined, Student t- test & A-nova were applied.

Results:

1. The frequency of imposter syndrome is 53.3% among Medical Students.
2. Majority (85%) of the Medical students had frequent to intense imposter feelings.
3. Higher numbers of Female students were affected by imposter phenomenon as compared to males.
4. Greater number of 1st year students were suffering from imposter syndrome compared to 2nd year students.

Conclusion:

1. There is a high frequency of imposter syndrome among Medical students.
2. The degree of severity ranges from moderate to frequent imposter experiences and female students are affected more as compared to their male counterparts.

Keywords: Imposter syndrome, Medical students, Frequency, Cross sectional study

KAP STUDY REGARDING MEDICAL ETHICS AMONG UNDERGRADUATE STUDENTS OF MEDICAL COLLEGES IN PESHAWAR

Principal Investigator: Ihtisham Akbar
Pak International Medical College

Introduction:

Medical practice throughout the world has become increasingly commercialized in recent past. Among all the various fields, Medical ethics has taken a backseat.

Objectives :

1. to find out how aware are undergraduates regarding medical ethics and how many students are in favor of including medical ethics in their syllabus.

Methodology:

This cross-sectional descriptive study was conducted in five medical colleges of Peshawar from November 2018 to February 2019. Sample size of 150 medical students was determined. Convenient sampling technique was used. For data collection questionnaires were distributed after taking administrative permission and informed consent from the participants. Data was analyzed using MS Excel and SPSS version 22.

Results:

1. Out of 150 students, 70% agreed to the importance of ethics.
2. 84% are in favor of including Medical Ethics in their syllabus.
3. 40% of the students disagreed with getting consent from patients.
4. 68% disagreed and 14% agreed to assist the patients in dying. 46.6% were aware about the Institutional Ethical Committee.

Conclusion:

1. This study highlights the lack of improvement in ethics awareness corresponding to increasing exposure to medical education.

Keywords: Medical Ethics, Undergraduate Medical Education, Medical Students

KNOWLEDGE AND PRACTICE OF DENGUE FEVER AMONG UNDERGRADUATE MEDICAL STUDENTS IN PESHAWAR

Principal Investigator: Sajjad ullah Wazir

*Co-Investigator: Umar Farooq, Afreenish Amin, Zain Ul Abidin,
Pak International Medical College*

Introduction:

Dengue fever remained a major public health problem in Pakistan in recent years.

Objectives :

To evaluate the knowledge and practices of medical students regarding dengue fever in Peshawar.

Methodology:

A descriptive cross-sectional study was conducted in Peshawar from December 2018 to February 2019. A sample of 200 medical students was taken and sampling technique was non-probability convenience. A sample of two hundred (200) medical students of various medical colleges students (undergraduate) from Peshawar KPK were taken as participants. Data was collected through questionnaire and analyzed by SPSS version 16.

Results:

4. Among 200 medical students, 40% were male and 60% female.
5. 86% were living in urban areas and 13.5% in rural areas.
6. 58% knew that dengue is caused by a mosquito bite and 76% knew than outdoor sleeping increases the risk of dengue fever.
7. 46 % wear loose, long sleeved shirts and trousers on most days of week.
8. 24% use mosquito net and 25 % apply mosquito repellents.
9. 56% prefer indoor sleeping. 22% use insecticidal spray on most days of week.

Conclusion:

1. Knowledge of medical students is more as compared to their practice for the control & prevention of dengue fever.

Keywords: Dengue Fever, Undergraduate Medical Students, Public Health Problem

KNOWLEDGE, ATTITUDE AND ETHICAL PERCEPTION REGARDING ORGAN DONATION AMONG MEDICAL STUDENTS OF LAHORE

Principal Investigator: **Tehseen Zahra Villayat**

Co-Investigators: Aiyaan Shaukat Kiani, Sana Mukhtar, Hafsa Tahir, Taha Bashir, Sidra Javed, Samra Idrees

Fatima Memorial Hospital College of Medicine and Dentistry, Lahore

Introduction:

Organ donation is the keystone of the organ transplantation process. The scientific and ethical committees have regarded religious and ethical aspects of organ donation. Global prevalence of knowledge on organ donation has been found to range from 60% to 85%.

Objectives :

1. To assess the knowledge and determine the attitude and ethical perception of medical students towards organ donation.

Methodology:

A questionnaire based, descriptive, cross-sectional study using probability, stratified random sampling was conducted among medical students at FMH College of Medicine with 6-months duration. Sample size was 360. Data was analyzed using descriptive statistics through SPSS version 23.0.

Results:

1. Out of 360 students, 98.3% of students knew about organ donation, most common sources of information were medical curriculum (58.2%) and internet (40.5%).
2. Majority of students (96.9%) had information regarding which organs can be donated, 95.4% supported organ donation and 63.6% were willing to donate their organs.
3. Also, 79.1% had perception that organ donation is allowed in religion, 92.7% agreed about strict check and balance for it and 87.9% agreed for taking donors' consent.
4. Only 11.3% of students were aware of rules and legislation about organ donation and transplantation in Pakistan.

Conclusion:

1. Majority of students had positive attitudes towards donating organs and had good knowledge about which organs could be donated citing media and medical curriculum as the main source of information.
2. The study also suggested that there is a lack of adequate information regarding legislation. Thus, measures should be taken to bridge these gaps of knowledge.

Keywords: Organ donation; Medical students; Attitude; Ethical perception

KNOWLEDGE, ATTITUDE AND PRACTICES RELATED TO DENGUE FEVER AMONG UNIVERSITY STUDENTS

Principal investigator: Syed Moosa Haider

*Co-Investigator: Muhammad Harris Khan, Anas Javed, Muhammad Awais Sultan
Islamic International Medical College, Rawalpindi*

Introduction :

Dengue is an infectious disease caused by a virus. The virus is transmitted by a type of mosquito (*Aedes aegypti*). It is important to build a good attitude and practice besides providing knowledge relating to dengue among younger generations, so that they could educate other people especially those who are close to them as well as applying good practice of dengue prevention when they are in the campus or at home.

Objectives :

1. To assess the level of knowledge, attitude and practices of the students of the university in order to protect themselves from the morbidity and mortality of Dengue Fever.
2. To raise awareness of the students regarding dengue fever and the association of Knowledge with Practices.

Methodology:

This observational/cross-sectional study was conducted among the students of Riphah International University Al-Mizan Campus from 13-09-2019 until 27-09-2019. The sample size was 250. Convenience sampling was used to draw the sample. All the students of the mentioned university campus were included in this study. Those who were interested to take part in study were distributed a structured, pre-tested questionnaire. Data was analyzed using SPSS version 21.0. Results were considered significant at $p < 0.05$.

Results:

1. Majority of the students had moderate knowledge and moderate practices.
2. 48.4% had a moderate attitude while 50.4% students had overall good attitude towards the dengue fever.
3. Pearson's correlation was performed to see if there was an association between Knowledge and Practices.
4. Result was originated and was considered statistically significant ($p < 0.05$).
5. The result also showed a weak, positive correlation between knowledge and practices ($r = 0.131$).

Conclusion:

1. It is concluded that the majority of the students had moderate knowledge and practices with a good attitude.
2. It was also analyzed that an association is present between knowledge and practices which means that those with the knowledge are practicing to protect themselves from Dengue.

Keywords: Dengue, Knowledge, Attitude, Practices, Pearson's correlation

KNOWLEDGE, VIEWS AND ATTITUDE OF INTERNET USAGE AMONG DENTAL STUDENTS (UNDERGRADUATES) IN KARACHI.

Principal Investigator: **Sameer Qureshi**

Co-Investigators: Dr Zara, Dr Farwa, Dr Nawal, Dr Vanessa
Fatima Jinnah Dental College & Hospital, Karachi.

Introduction :

Internet is a global system of connecting millions of people publicly. The establishment and evolution of Internet has brought changes on a larger scale in the health care delivery systems across the universe ranging from education and training to diagnosis and management of the patients. It has a number of applications in the field of dental health.

Objectives :

To assess the knowledge, views, attitude of internet usage among dental students (undergraduate) in Karachi.

Methodology:

A cross-sectional, questionnaire-based study was conducted for period of July 2019-January 2020. The study consisted of dental undergraduate students of 4 dental universities/college in Karachi i.e. FJDC, **AIDM**, **BUMDC** and **ZU**. Using PASS-V11. The sample frame consisted of 612 students from all 4years. The data were analyzed using SPSS version 23 and frequency was determined.

Results:

Entertainment was the main purpose for using internet 276(45.1%), for dental information 0.2%. 537(87.7%) students found social media valuable for dental purpose. 433(70.8%) had awareness about dental sites. The 460(75.1%) students stated: they prefer internet over textbooks for latest knowledge, easy accessibility. Majority students agreed that internet should be encouraged in teaching institutes 562(91.8%).

Conclusion:

The study concluded that the use of internet is extensive among dental students; however, its use and frequency with respect to its capability as a learning tool in dentistry is less as compared to other countries.

Keywords: Internet, Dental students, Social media.

LEVEL OF PHYSICAL ACTIVITY AMONG UNDERGRADUATE STUDENTS OF PESHAWAR MEDICAL COLLEGE

Principal investigator: **Mahnoor Jamshaid**

Co-Investigators: Marwah Amjad, Adiba Aziz
Peshawar Medical College

Introduction :

Medical school is challenging period that may bring about undesired changes in health and life style habits. In order to thrive both mentally and physically students must maintain a balanced routine and adopt healthy lifestyles. Scientific evidence confirms that an unhealthy lifestyle habit, one of which is lack of physical activity plays an important role in the development of many disorders in all age groups.

This study will determine the practice of physical activity among the medical interns as they are the future doctors and as physicians, tomorrow they will be able to advice their patients regarding healthy lifestyle practices.

Objectives :

1. To determine the level of physical activity among undergraduate students of Peshawar Medical College.

Methodology:

A descriptive cross-sectional study was conducted in Peshawar medical college from December 2019 to January 2020. Non-probability convenience sampling technique was used. All the students of PMC were included in the study. Students who were absent on the day of data collection and those unwilling were excluded from the study. Data was collected through a questionnaire. Descriptive statistics were used to analyze the data.

Results:

Among the 405 respondents, 235(58%) were male and 170(42%) were female. About 18% of the male and 9% female students did vigorous physical activity during last week. While 90% of male and 73% of female was involved in moderate physical activity during last week. As far as walking was concerned, the percentage of male and female students was similar i.e., 98% and 95%. Students who sat for at least 12 hours on every single day of last week were 100% both in case of male and female.

Conclusion:

1. The level of physical activity among students of PMC was very low. So, it is concluded that medical students should make changes in their lifestyle habits and should make physical activity as part of their daily routine.

Key words: Exercise, Student, Medical.

ODD TIMINGS OF FOOD INTAKE AND ACADEMIC PERFORMANCE

Principal Investigators : Mohammad Ali.

Co-Investigators: Saad Mukhtar, Faraia Sohail, Saad Mubeen, Sania Muslim, Syed Kamran, Juwayria Omar, Samira Khurram.
Fazaia Medical College, Islamabad.

Introduction :

Pakistan has one of the highest numbers of malnourished children in the world. 42% of children under the age of 5 are stunted, 31% are underweight and 14% are wasted. Malnourishment in adults and university going students is also a major problem in Pakistan. The effects of malnutrition of any kind in affected subjects are diverse.

Objectives :

1. The purpose of this study was to find effect of dietary habits of Air University students on malnutrition and its association with their academic performance.
2. To find out dietary habits of AU students
3. To determine the effect of dietary habits and BMI on academic performance

Methodology:

A descriptive Cross-sectional study was carried out in Air University Islamabad on over 168 students from different departments in a period of 8 months (March-October). Questionnaires were distributed and analyzed via SPSS version 23.0. Frequencies were calculated and cross tabulations were done. Results showed that about 46% of respondents didn't take breakfast in weekdays. The relationship between Gender and BMI is statistically significant. More males were overweight while more females were underweight.

Results:

Results also showed that more people who took breakfast regularly had normal BMI. No association of BMI, skipping meals and academic performance was found.

Conclusion:

Our study concludes that more people who took breakfast regularly had normal BMI. No association of skipping meals and academic performance was found.

Key words: Malnutrition, underweight, academic performance

PERCEPTION ABOUT THE FACTORS ASSOCIATED WITH SMOG AMONG MEDICAL STUDENTS

Principal Investigator: Muhammad Umair Butt

Co-Investigators: Rashk Fatima Waseef, Hina Ahmed

FMH College of Medicine and Dentistry

Introduction :

With increasing urbanization, we are getting repeatedly exposed to an environmental calamity. There are many factors associated with rising pollution among which smog is one of them.

Objectives :

1. To assess the perception of factors associated with smog, its health implication and preventive measures among medical students of Fatima Memorial College of Medicine and Dentistry.

Methodology:

Cross sectional study was conducted in Fatima Memorial College of Medicine and Dentistry in 2018. The study population was M.B.B.S, 2nd 3rd and 4th year students. Data was collected through a questionnaire using convenient sampling technique. The study was completed in 6 months. The ethical considerations were fulfilled both individual and institutional. SPSS software was used for data compilation and analysis.

Results:

1. A high proportion of the respondents 305 (76.30%) had a perception that smoke is the basic component of smog whereas 241 (60.3%) considered dust formed a major part of smog.
6. However, 302 (75.5%) thought that if precautions were not taken smog could cause asthma whereas 245 (61.3%) believed that smog lead to bronchitis.
7. Among all, 273 respondents (68.3%) believed that social media can work as the most effective tool for health education regarding smog followed by 229 (57.3%) who realized that awareness campaigns should be raised through educational institutions for this purpose.

Conclusion:

1. The results of this study provided information that the medical students had good perception of factors associated with smog, its health implications and preventive measures.
8. Social media and educational campaigns in institutions could be most effective medium for spreading awareness about smog to the general population as well as to those who might not be aware of all the factors that contributed to its production and effects and how smog could affect their health and daily lives.

Keywords: Smog, eye irritation, automobiles, asthma, social media

PERSONALITY DYNAMISM AND ACADEMIC PERFORMANCE AMONG BOARDERS AND NON-BOARDERS IN A MEDICAL UNIVERSITY

Principal Investigator: Areeb Khalid

*Co-Investigators: Abdur Rehman Malik, Adam Umair Ashraf Butt, Muhammad Sarfraz Khan,
Shahzaib Maqbool, Hashim Khan, Muhammad Waqar Younas
Rawalpindi Medical University*

Introduction :

Person's behavior, cognition and emotional abilities that result from his interaction with its surroundings constitute its Personality. The personality of an individual is modified by his ability of social perception, life experiences and training. The pattern of study in which person acquires education has a great influence on its personality.

Objectives :

1. The study aims to find the effect of environment on student's personality dynamics and academic performance

Methodology:

It is a comparative descriptive cross-sectional study done at Rawalpindi medical University, Pakistan. The duration of study was from January 2019 to April 2019. A questionnaire was randomly distributed among the students of Rawalpindi Medical University and filled under supervision. The questionnaire had 2 parts 1) Academic performance information 2) Big Five inventory (BFI-40). Only MBBS students of Rawalpindi Medical University were included while those students who had homes nearby (within 30km diameter) but were still living in hostels were excluded. For statistical analysis independent t-test was applied using windows SPSS version 22.0. The statistical significance value taken was 0.05.

Results:

1. Out of 300 questionnaires distributed 287 were properly filled giving a response rate of 95.6%. THE ALPHA Cronbach's value was .750. The mean age was 20.87 ± 1.344 . There were 216(75.1%) male and 71(24.9%) females. 183(63.8%) were Boarders and 104(36.2%) were non-Boarders.
9. The mean scores of Extraversion, Agreeableness and Conscientiousness were higher for boarders while mean scores of Neuroticism and Openness were higher for non-boarders.
10. High average percentages in professional exams were common in non-boarders while boarders were taking supplementary exams.

Conclusion:

1. Thus, environment has major impact on the personality dynamics as well as academic performance of MBBS students.

Key words: Big Five inventory-40, Boarders, Non-Boarders.

PREVALENCE OF DEPRESSION, ANXIETY AND STRESS LEVELS IN STUDENTS OF MEDICAL COLLEGES IN THE PUNJAB PROVINCE OF PAKISTAN

Principal Investigator: Aneeqa Ali

Co-Investigators Sumera Badar Ehsan

Department of Medical Education, Faisalabad Medical University, Faisalabad.

Introduction :

Medical college/university students face not only challenges related to their academic workload, but also some social challenges including financial concerns, sleep deprivation, exposure to patient's sufferings and deaths which lead to student's mental health and psychological morbidity with a high frequency of depression, anxiety and stress.

Objectives :

1. The aim of this study was to assess the prevalence of depression, anxiety and stress level in students of medical colleges/universities in Punjab province of Pakistan.

Methodology:

A cross-sectional study was designed in which 500 students (107 males and 393 females) from different medical colleges/universities participated. The mean age of the participants was 21.31(SD=1.58). Through an anonymous, self-administered questionnaire, they were assessed by the Depression Anxiety Stress Scale-42 (DASS-42). Demographic data including age and year of study was also obtained. Shapiro-Wilk Test, Mann-Whitney U test and Kruskal-Wallis H test were performed for statistical analysis and comparison of depression, anxiety and stress data using SPSS-19 software.

Results:

1. Analysis showed among all students, 11.20% had severe and 14.6% had extremely severe depression;
11. 19.2% had severe and 24% had extremely severe anxiety;
12. and 14.20% had severe and 8% had extremely severe stress scores based on the DASS-42 inventory.

Conclusion:

1. The prevalence of anxiety is higher as compared to depression or stress.
2. However, Mann-Whitney U test and Kruskal-Wallis H test show no significant differences of depression, anxiety and stress in male and female students at this sample level.

Keywords: Stress, Depression, Anxiety, DASS-42, Medical Students

PREVALENCE OF DIFFERENT STUDY TECHNIQUES AMONG HIGH ACHIEVERS OF PESHAWAR MEDICAL COLLEGE AND PESHAWAR DENTAL COLLEGE

Principal Investigator: Awais Shahzad

Co-Investigators: Muhammad Asim, Ahmad Jawad Khan

Introduction:

Many students are being left behind because they do not know how to use available resources and what study technique is best suited for them. Everyone has a different way of learning and there's no one right way for everyone or for every paper you're studying. However, the crucial element is that one actively engages in the learning process.

Objective:

1. To estimate the prevalence of different study strategies used by high achievers of Peshawar Medical College and Peshawar Dental College.

Methodology:

A descriptive cross-sectional study was conducted in Peshawar Medical and Dental College from January to February 2020. A non-probability convenience sample of high achievers including top 10 students of MBBS and top 5 students of BDS was used. Our study excluded those students who were absent at the time and who were not willing. Data was collected through a structured questionnaire and SPSS (2020) was used to analyze the data.

Results:

1. Among the 50 study participants, 46% were male and 54% were females.
1. About 36% of the top student's study on a regular basis for 2 hours.
2. Majority of these students i.e., 72% use both handouts and books for study and 84% regularly uses internet for their studies.
3. About 24% of these students have 90% attendance in the class and 64% used to study from the start of their academic year.

Conclusions:

High achievers are capable of exercising more learning strategies in general for the improvement of their position in class. Teachers along with these students could help students to discover and get familiar with their own learning styles in order to help them become self-aware learners.

Keywords: Students, learning, medical

PROVISION OF HANDOUTS AT THE END OF LECTURE AN EFFECTIVE TEACHING AND LEARNING PRACTICE

Principal Investigator: Hira Majied
Shalamar Medical and Dental College

Introduction :

Students handouts are considered as an effective tool to understand lectures and enhance learning by many teachers but some believe that they promote spoon-feeding.

Objectives :

1. To find out students' perception about usefulness of provision of handouts.
1. To find out if it is required to give handouts after lectures to the students.

Methodology:

A cross sectional study was held at Shalamar Medical and Dental College, Lahore, for 6 months in which 185 students were selected by simple random sampling, from all the Five Years. Both genders were recruited after taking informed consent and informing them of the objectives. A structured questionnaire prepared by the researcher was used for data collection.

Results:

1. 22.7% strongly agreed, 55% agreed while 22.1% disagreed with the question "I believe handouts improve my understanding of lecture".
2. 21.6% strongly agreed, 64.3% agreed and 14% disagreed with the question "I feel handouts help me in preparation of my exam".
3. 21.6% strongly agreed, 57.2% agreed and 20.5% disagreed with the question "I feel satisfied when handouts are provided to me".
4. 20% strongly agreed, 58.9% agreed and 21% disagreed to the question "I feel handouts with only key points are better than full text handouts".
5. 17.2% strongly agreed, 65.1% agreed and 17.8% disagreed with the question "I feel every teacher should provide handouts to the students".

Conclusion:

1. Most of the students agreed that handouts are useful and improve learning, while some disagreed

Keywords: Handouts, improved learning, exam preparation.

RELATION OF BODY IMAGE TO ANXIETY, AMONG MEDICAL STUDENTS OF ISLAMIC INTERNATIONAL MEDICAL COLLEGE (IIMC)

Principal Investigator: **SUMANI IRFAN**

Co-Investigators: Aqsa Rasool and Syed Ahmed Shah Bukhari
Islamic International Medical College, Rawalpindi

Introduction :

Body image is the perception of one's own self which has a huge impact on a person's self-esteem, mental health and social interactions. According to WHO definition all these elements form integral part of a healthy being thus needs to be taken in account from adolescence as its crucial period in development of one's being. Body dissatisfaction is predicted to deploy depressive disorders with unhealthy outcomes. It has emerged as a major predictor in psychosocial functioning and social interaction of adolescents. Although body image has been found to have meaningful correlates, previously it has not been associated with anxiety and social interaction.

Objectives :

The main objectives behind the study were to:

1. Evaluate positive and negative body image index among medical students.
2. Measure body image influence on anxiety.
3. Degree of effect of body image on anxiety in reference to gender.

Methodology:

It was a cross sectional descriptive study conducted on medical students at Al-Mizan campus IIMC from April 2019 till August 2019 after approval from ERC. An authentic 15 item questionnaire based on Likert scale was used in the study. SPSS 21 software was used to analyze data.

Results:

1. Most of the medical students of IIMC depicted positive body image with significant value of 0.00.
2. When body image was associated with anxiety it was seen that 80% of the students had positive body image with no anxiety at all and 14.7% with negative body image and associated anxiety.
3. No strong relation was found between body image related anxiety in reference to gender with insignificant value of 0.105.

Conclusion:

1. It is concluded from the research that individuals having positive body image have less anxiety when strictly speaking of body image.
2. we cannot ignore the individuals with negative body image thus counselling of such students is necessary.

Keywords: Body image, anxiety, medical students

TO STUDY THE KNOWLEDGE OF HEALTH-SCIENCES STUDENTS REGARDING ADR'S OF ANTIBIOTICS

Principal Investigator: Anoosh Shakil

*Co-Investigators: Maida Abid, Areej Javed, Haseeb Baig, Iqra Shamshad.
Hamdard University, Karachi.*

Introduction :

After the discovery of the first antibiotic the discovery and development of antibiotics accelerated rapidly. A century ago, the use of antibiotics was significantly safer than today. It was quickly realized that bacteria are capable of developing, acquiring, and spreading numerous resistance mechanisms. The severity of side effects differs from class to class. Antibiotics are found to damage mammalian tissues like liver, gastro-intestinal tract, kidney and others.

Objectives :

1. Purpose of the study was to evaluate the effects of antibiotics in human body in correlation with prescriptive vs. non-prescriptive medication
2. and report the risk of escalating prevalence of self-medication.

Methodology:

A cross-sectional study was carried out with health science students as target population. A questionnaire was designed trying to evaluate the knowledge of the participants regarding ADRs and option of self-medication. Out of 217 students contacted 200 responded (92%). Data was analyzed via SPSS 20 using Pearson's chi square test with $p < 0.05$ was considered significant.

Results:

The survey results revealed that 78% (n=157) were aware that extensive antibiotic use contribute to antibiotic resistance by the organism and consumers (n = 147, 73.5%) also become resistant to antibiotics and 78% believe in disturbance of normal flora. About 70% (n=140) of the participants adversely suffered by the use of prescribed antibiotics. 54% (n=108) reported their negative effects to their physicians. 24% (n=48) of the people discontinued the use of their prescribed medication while 60.5% (n=121) used an alternative therapy. Present data showed that majority of health science students do not practice self-medication ($\chi^2 = 140.2$, $p < 0.05$).

Conclusion:

The obtained results suggest that adverse effects are very common as far as antibiotic use is concerned. Moreover, efficient pharmaco-vigilance programs must be established and proper ADR reporting by patients should be ensured.

Keywords: Anti-bacterial agent, adverse effects, prescription drugs, pharmacovigilance.

TREND OF MEDICAL RESEARCH JOURNAL AND ARTICLE READING AMONG MEDICAL STUDENTS – AN EXPERIMENTAL APPROACH

Principal Investigator: Agha Syed Ali Haider Naqvi

Co-Investigator: Muhammad Haris Ramzan

Federal Medical and Dental College, PIMS Islamabad

Introduction:

The medical research journal or research article is significant because it is an evidence of new research and knowledge in a particular medical discipline.

Objectives :

1. To assess the practice of medical research journal and article reading among medical students.
2. To investigate the effect of research seminars, workshops, motivation and mentorship on medical students.

Methodology:

A medical college based experimental study was carried out in two phases, in which 2nd, 3rd and 4th year medical students attending the lectures of community medicine were enrolled. A well-structured questionnaire was used to assess the attitude of students, towards research activities. Based on the results from the first questionnaire, the students which showed lack of interest towards research were divided into two groups, experimental and control for the second phase of the study and were subjected to the final questionnaire, the results were then recorded and the data was analyzed using statistical techniques.

Results:

1. Out of 226 students (76 from 2nd Year, 82 from 3rd Year & 68 from 4th Year) recruited for the first part of the study, 152 showed lack of guidance (82.74%), mentorship (72.12 %) and curriculum overload (69.91%) as significant factors affecting their research activities.
2. In the second part of the study, the experimental group showed an increase of 23 – 35 % in research activities after research motivation and awareness programs as compared to the control group.

Conclusion:

1. The knowledge and proper understanding of research was generally low among medical students.
2. Lack of motivation, guidance, mentorship and curriculum overload were one of the leading factors affecting their attitude towards research.
3. The motivational lectures, workshops and mentorship programs proved very successful in improving student's knowledge about research and research-based activities.

Keywords: Perceived Barriers, Research Seminars, Workshops, Mentorship.

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