WHITECOATS

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4TH EDITION

A PUBLICATION OF THE MAHDI HEALTH INITIATIVE

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MESSAGE FROM THE EDITORIAL TEAM

Dear Reader,

What you are about to embark upon is less of a magazine and more of a journey. From natural remedies and traditional ideas and approaches to health care that our elders passed down; to advances in technology in health care where it seems even doctors may become redundant; we welcome you to the Past, the Present and The Future of Healthcare in this edition of WhiteCoats.

With articles exploring this theme to pages to allow you to interact and from challenging yourself to activities to indulge in for all ages; this magazine is the product of the effort and hard work of the WhiteCoats Editorial team and for that we thank them all. We also thank our sponsors for their support. So sit back in a cozy corner with your cup of chai and have at it. We really hope you enjoy as much as we did when compiling it!

In case of any queries or suggestions, do not hesitate to contact us via email at mhi.whitecoats@gmail.com

Enjoy!

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Get to know the MAHDI HEALTH INITIATIVE

Written & Compiled by: Zainab Karim – Alimohamed and Farha Rashid

The Mahdi Health Initiative (MHI) is a faith-based group of Khoja Shia Ithna-Asheri health professionals. It was formed in 2016 by a group of a few health professionals who had just graduated and come back to Dar es Salaam from their respective universities, and felt the need to connect with other health professionals in the community in order to serve a bigger purpose. Hence, MHI was born with the aim to create a platform where the health professionals can interact with each other to grow and develop professionally, while also creating an impact on the health outcomes of the community and Tanzanian citizens in general.

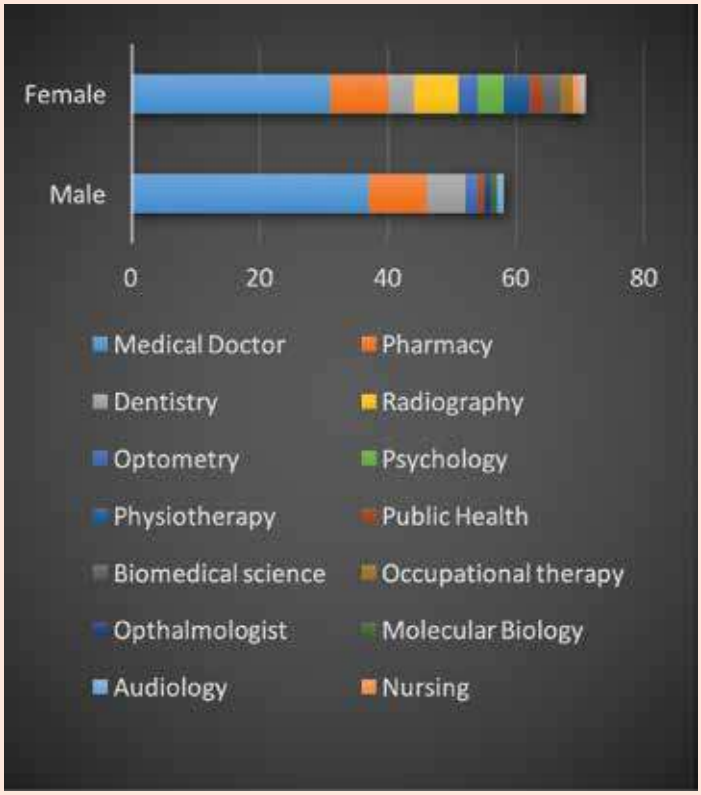


Figure 1: Medical Professions at MHI (as of 2020)

MHI now has a membership base of a little less than 200 health professionals, majority based in Dar es Salaam but also based in other cities in Tanzania and outside of Tanzania. Majority of the members are female and MHI members also consist of students in the health field in undergraduate as well as postgraduate levels. MHI has a diverse membership base of various professions as can be seen in Figure 1.

MHI also collaborates with the AFED to cater for 40+ Jamaats across Africa.

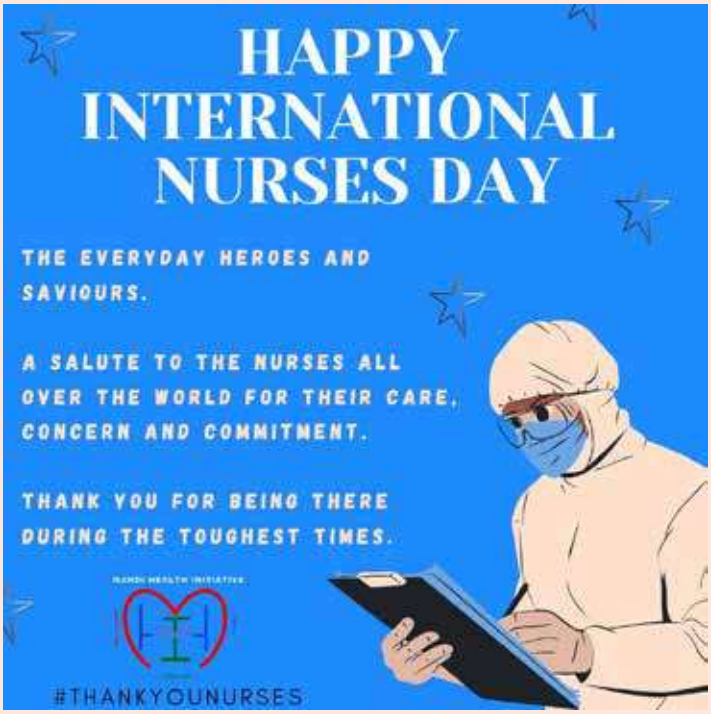
It boasts specialists in various fields as can be appreciated in the Figure 2 below.

WHAT WE DO?

Serving Humanity is the central dogma of the MHI's purpose and hence various events are organized to serve the communities at different levels. Events organized by the MHI include:

i) Continuous Medical Education (CME) sessions for health professionals in various fields to expand their scope of knowledge and get their doubts cleared by experts in the fields. The CME's cater for MHI and Non MHI members as well as KSIJ community and non-community-members. Some of the CME's that have been organized include topics such as Acute Kidney Injury, Dealing with Fractures, COVID-19 and Genetics.

ii) Health Information dissemination and awareness.
MHI tries to raise awareness on various health related issues through its social media platforms by releasing information weekly on specific topics to continue educating the public on causes, treatment and prevention of different diseases/illnesses and by organizing health seminars for the public.



iii) Basic Life Saving Skills.
The MHI collaborates with other institutions such as the Central Medical Board and the 3C to organize and facilitate training sessions

on Basic Life Saving Skills in order to equip the public with important skills to be able to save the lives of people around them. MHI has successfully trained the staff of Bilal Comprehensive School in Dar es Salaam and all the KSIJ volunteers and work on training more groups.

iv) Health screenings to aid in early detection of common health issues that can be tackled if detected early. To name a few, MHI has organized and participated in breast cancer screenings, sickle cell screening and mental health screening programs.

v) The White Coats Magazine. Every year for the last 4 years, MHI publishes and releases a health magazine to the KSIJ community. This magazine is filled with informative articles that caters for the public and aims to create awareness and debunk myths on various health related issues. The magazine caters for adults and children alike.

Ayurvedic Medicine and Homeopathy – Do they still work?

Shaista A G Hasham

The ancient Indian medical system, also known as Ayurveda, is based on ancient writings that rely on a "natural" and "holistic" approach to physical and mental health. Ayurvedic medicine is the world's oldest medical system and still exists as a traditional health care system. Ayurvedic treatment combines products (mainly derived from plants, but may also include animal, metal, and/or minerals), diet, exercise, and lifestyle.

While Ayurveda emphasizes the prevention of diseases, Homeopathy facilitates the cure of the disease by activating the immune system through exposure to the symptom causing substance and further making the body resilient to the disease

The COVID-19 pandemic has intensified the race for a cure or vaccine for COVID-19 through multiple experiments, research, and clinical trials. Multiple lab studies have also reported alternative and complementary medicine forms, such as Ayurveda which are also being studied.

Despite the World Health Organization not directly recommending the use of homeopathic
medications for the treatment of COVID-19; there are many who practice the use of such traditional and alternative medicines for preventive measures against COVID-19, an example being our own country where it often goes by the term "NYUNGU" meaning steam
inhalation; a practice that of recent has become quite popular and widely encouraged.

Ayurvedic preventive measures for self-care maintain and boost the body's natural
defense system which is important in maintaining optimum health especially during this pandemic.

Some of the popular preventive measures suggested include drinking lukewarm water frequently, using spices like Turmeric, Cumin, Coriander, Dry ginger and Garlic in cooking. The use of Golden Milk which comprises of half a teaspoon of Haldi (turmeric) powder in 150 ml hot milk to be used once or twice a day, gargling with warm water containing a pinch of turmeric and salt, freshly preparing food which is easily digestible, the practice of Yogasana, Pranayama and meditation for at least 30 minutes, getting adequate sleep (7–8 hours) and avoiding sleeping during the daytime, oil pulling therapy where one takes a tablespoon of sesame oil or coconut oil in the mouth and without swallowing, swishes it in the mouth for 2 to 3 minutes and spits it off followed by warm water rinse. Steam inhalation with plain water OR Mint leaves OR Caraway seeds OR Camphor is also frequently practiced.
Ayurvedic Preventative Measures are commonly used for mild symptoms including dry coughs or sore throat. They are not advisory treatment measures, especially for COVID-19. If you have symptoms of COVID-19, it is important to consult your doctor for appropriate treatment.

Ayurvedic medicine and homeopathy are important components of health care as whole when the source is verified and the practice is justified and we can use these facets of medicine hand in hand with allopathy to attain total and complete wholeness and health.

Health and Wellbeing– The Quranic Perspective

Muhsin H. Sheriff

The COVID-19 pandemic has highlighted the importance of robust health and health systems. Health is defined by World Health Organization (WHO) as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.'

For Muslims, the Holy Quran is the primary source of guidance for leading a successful behavioral and spiritual life. It is an 'admonition, healing, guidance and mercy for the believers' (10:57). Although, it is not a textbook of healthcare, it caters for all realms not just this world but also afterlife 'aakhera'. It emphasizes on the spiritual dimension and interconnectedness with the body and mind. Thus, it provides a more global and holistic promotion of health.

Physical wellbeing

There are many instances in which the Quran talks about physical health. In the case of nutritious food, the Quran mentions various fruits e.g. bananas (56:29), olives (23:20; 95:1), pomegranates (55:68), grapes (23:19), figs (95:1), dates (16:11; 17:91), honey (16:68,69). The Quran mentions these as signs for people who 'reflect' (16:11), 'ponder' (16:67). Pondering over these 'signs' in Quranic context, provides a spiritual dimension which elevates the soul towards the ultimate goal.

On health behavior concerning food, the Quran states '...Eat and drink but be not extravagant ....' 7:31. The Holy Book discourages waste and excess.

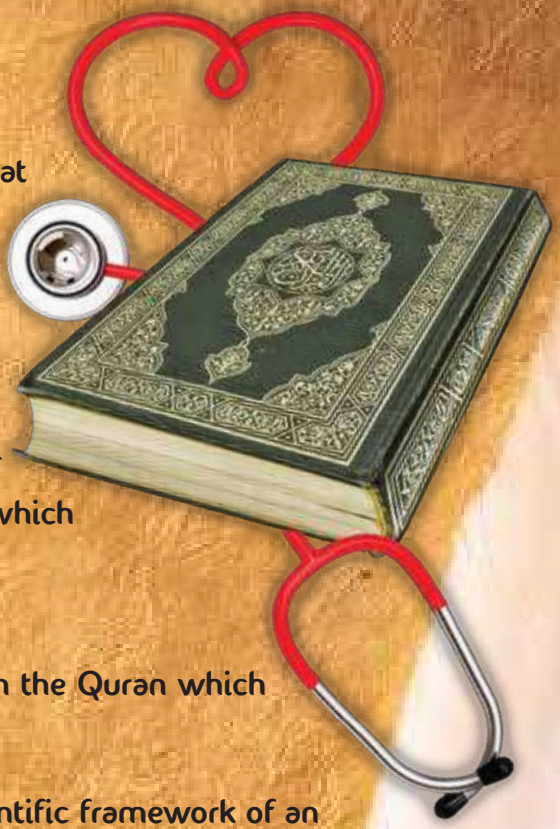
The Quran goes beyond this and advises about 'tayyeb' food. 'And eat of the lawful and good (tayyeb) that Allah has given to you ....' (5:88). Tayyeb is variously described as clean, wholesome but even spiritually pure. This is emphasized in (20:81).

Fasting is highly encouraged and even compulsory in the month of Ramadhan. This is now known to help in promoting health and treating ill health.

Alcohol and intoxicants are prohibited. The Quran (5:90,91) argues that these are unclean ('najis'), work of Satan, cause enmity and hatred, and keep one off the remembrance of Allah and prayer. The 'sin is greater than the profit' (2:219).

There are many references in the Quran to maternal and child health. It explains about the conception, growth of fetus and breastfeeding (2:233).

The Quran encourages hygiene. 'Surely Allah loves those who purify themselves' (2:222).



Mental wellbeing

There are various behaviors relating to mental health that maintain good mental wellbeing e.g. charity, forgiveness, patience etc. All these are promoted in the Quran.
Controlling anger and forgiving recommended in (3:133) relieves stress and may prevent many mental disorders.

Social wellbeing

The Quran teaches social wellbeing - marital life, care of parents, children, relatives, neighbors and other people – which improve social wellbeing.

Spiritual wellbeing

There are various characteristics of a believer encouraged in the Quran which strengthen him spiritually thus improving wellbeing.

In conclusion, Quranic teachings go beyond the current scientific framework of an individual's health to include the universal state and interconnectedness of life, not just in this world but also the next; not just the physical, mental and social

Three Aamal Recommended By Ayatollah Waheed Khurasani For Protection From Illnesses.

1) Adhere to the advises of the doctors and maintain hygine as per guidelines given.

2) Place your hand on your heart and recite Surah Fatiha seven times everyday.

3) Recite Ayatul Kursi till اَلْعَلِيُّ الْعَظِيمُ seven times daily during the course of the day and night.

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SUCCESS WITH Breastfeeding

Breastfeeding is the best way to nourish your baby. It is recommended that you breastfeed until at least your baby's first birthday and then for as long as you and your baby wish. Below are some tips to help you breastfeed successfully.

Before your baby is born ...

- Discuss your commitment to breastfeeding with your healthcare professional. If you take medication, ask about options that can work with breastfeeding.
- Find out all you can about breastfeeding. Take a breastfeeding class to learn about positions and techniques.
- Share your decision to breastfeed with friends and family. Let them know why breastfeeding is best for your baby and how you will value their support.
- Buy breastfeeding supplies, such as nursing bras, breast pads, nipple cream, and nursing pillows.

When your baby is born ...

- Let your birthing facility's staff know that you are committed to breastfeeding. Ask them not to give your baby formula or a pacifier.
- Begin to breastfeed as soon as possible after your baby is born—preferably within the first hour.
- Ask to have your baby stay in the room with you so that you can follow his or her hunger cues. Breastfeed on demand and at least every 2–3 hours.
- Ask for help from a lactation consultant or the nursing staff to ensure that you are breastfeeding correctly.

Remember:

Breastfeeding is best for your baby, but it often takes a little practice and support. Don't get discouraged! Contact a lactation consultant or your healthcare professional whenever you have questions or concerns.

During your baby's first 6 weeks ...

- Breastfeed your baby at least 8–12 times a day. Frequent feedings will keep your baby well nourished and maintain your milk supply.
- Offer both breasts at each feeding. Alternate which breast you offer first from one feeding to the next.
- Keep all of your baby's healthcare appointments to ensure that he or she is feeding well and gaining weight. Talk to your healthcare professional or lactation consultant if you have any problems or concerns.
- Wait until your baby is 4–6 weeks old before introducing a pacifier or bottle if you intend to pump breastmilk for others to feed your baby.
- Hold your baby skin-to-skin to allow for bonding with your baby and improve your milk production.
- Talk with friends who have breastfed or join a breastfeeding support group for helpful tips and encouragement.

POSTPARTUM DEPRESSION

Dr. Shabnam Muccadam - Obstetrician/ Gynaecologist

Having a baby is one of the happiest times in life, but it can also be one of the saddest.
Motherhood is an overwhelming emotional experience and moments of happiness and joy are abruptly interrupted by depressive symptoms including weeping, anxiety, anger, and sadness. These "baby blues" normally peak two to five days after delivery and fade as fast as they had arrived, except sometimes, in most women, they don't go away.
Postpartum depression is characterized by uncontrollable feelings of grief, worry, or despair that impede women from doing daily chores. It usually starts at about 1-3 weeks after the infant is born, however it can continue to a year after.

It is caused by a combination of factors:

- Hormone changes- Hormone levels drop substantially following childbirth triggering depression in the same way changes in hormone levels trigger mood swings before menses.
- History of depression- Women who've had depression at any time; before, during, or after pregnancy or are currently being treated for depression are seven times more likely at risk.
- Emotional factors- It can take a long time to adapt to the notion of having a new baby. Parents of unwell babies may feel sad, angry or guilty, which in turn affects a woman's self-esteem and how she deals with stress.
- Fatigue- After childbirth, it might take weeks for a woman to regain her normal strength and vitality. It takes considerably longer for women who've had their babies via cesarean birth.
- Postpartum depression can be intensified by lack of social support and stressful life events such as the death of a loved one, sickness, or relocating to a new place.

Many women fear the social stigma associated with it, hence screening is critical. Sleep difficulties, anxiety, irritability and worry with the health or feeding of the newborn are all common symptoms.

Some of these can be expected, especially after a long night of caring for the baby but the severity of the symptoms, as well as how they impair a woman's capacity to adjust and manage with life stressors, are crucial in diagnosing postpartum depression.
Right after birth, a woman's chances of experiencing postpartum depression can be reduced with supportive and psychological treatment. Home visits, telephone-based peer support, and interpersonal counseling are all important interventions for reducing feelings of isolation and providing emotional support.

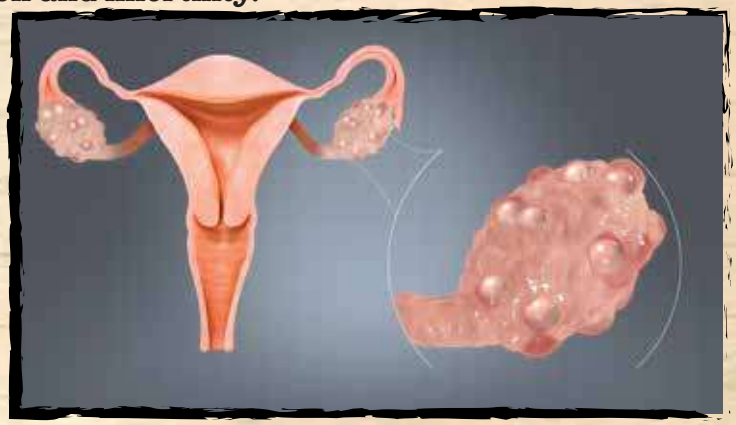
It is critical that she receives the required care. The best treatment for a woman is determined by the severity of her symptoms and how she responds to such interventions. Psychological therapies such as assistance for the new mother, support groups, and home nurse visits are used for postpartum women with mild symptoms. Formal psychotherapy alone or in combination with an antidepressant drug is used to treat women with moderate symptoms or mild symptoms that did not respond to early treatments.
The safety of antidepressant drugs while breastfeeding is a common worry. But only trace levels of the medication are present in breast milk. Physicians believe that breastfeeding mothers do not need to quit. When difficulties in breast-feeding or lack of sleep are intensifying the depression symptoms, clinicians support women in their decision not to breast-feed.
Early intervention is essential for preventing and treating postpartum depression. Women may or may not recognize that they are unhappy but are too embarrassed to seek treatment. As a result, screening all new mothers is critical. Encouraging women not to keep postpartum depressive symptoms a secret should be an important priority in the care of all new mothers.

Is it hard being ladylike with a beard?

Written by Raidah & Raisah Gangji

It's quite hectic having to wake up in the morning and shave your face just to look the part. Body hair is the 'normal' hair which is hidden, but how do we hide it when it is on our face? Perhaps our Hijabs can help us get out into the world and a razor to help, but hair will prevail. If that sounds familiar... there is a high chance you might have PCOS.

Polycystic Ovary Syndrome (PCOS) is a disorder characterised by high levels of male hormones and the absence of ovulation in women. Approximately 6%- 20% of women of reproductive age are affected by PCOS. Within the Indian community itself, 1 in 10 women have PCOS. The most typical indication of PCOS include male pattern hair growth, weight gain, irregular menses, acne, lack of ovulation and infertility.



Most women with PCOS start menstruating at a very late age with multiple skipped months and an extremely heavy flow lasting a month. They are also accompanied by terrible cramps, cravings, and acne.

Consequently, becoming anaemic requiring supplements and in most extreme cases, a blood transfusion.
Not only that, but the stubborn weight loss, discolouring skin, morphed body images, mood swings, westernised beauty ideals, and peer pressure that come as a package do not help make going to Jannah an easy trip.

Many women undiagnosed with PCOS live constantly blaming themselves for not looking or feeling a certain way, constantly dieting, skipping meals, counting calories and guilt exercising. Sadly, there is no cure for PCOS. Whether you have it ultimately depends on your genes. But you can learn to live and live happily with it.

PCOS isn't a new thing. PCOS was first described in 1712 by an Italian physician Antonio Vallisneri outlining the common symptoms. Genetics, insulin resistance, and inflammation have all been linked to produce excess male hormones, preventing ovaries from producing female hormones that help ovulate. The major step towards a positive change is to see your doctor. PCOS is not fun. It is disruptive, confusing and frustrating. It affects your health physically, mentally and emotionally. Getting a diagnosis can bring relief and answers which will change your life forever. But remember ultimately that you are not alone.

"What is really killing us?" Community Mortality Statistics – An Overview and Eye Opener

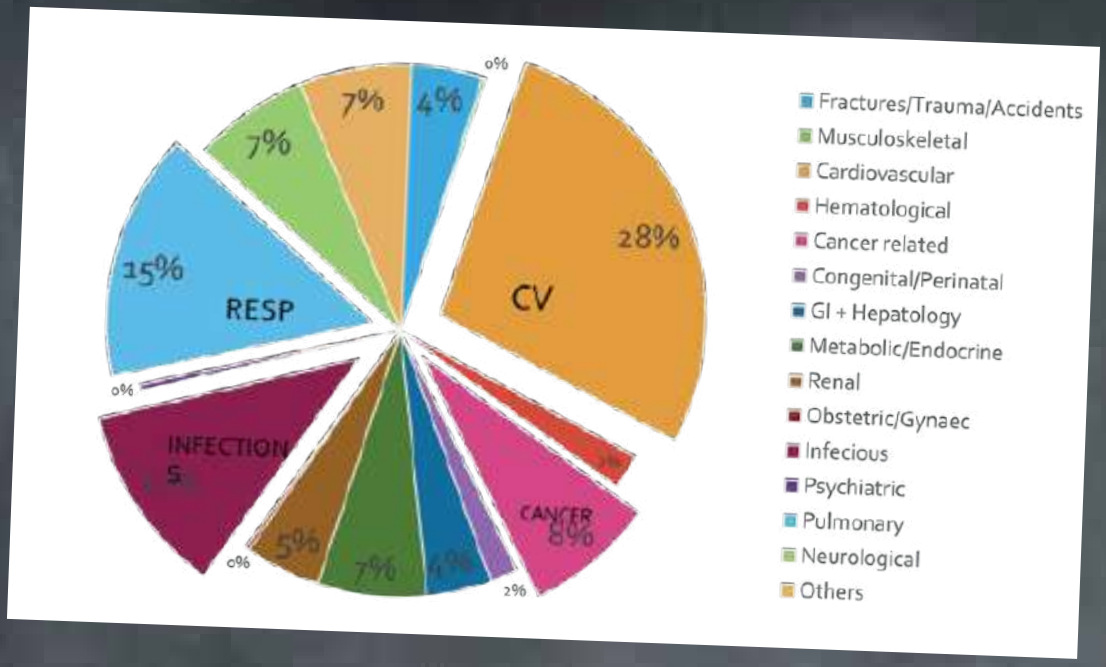
Dr. Mohamed Manji
(Physician and Neurology Fellow)

Q. According to data collected, what are the current trends of deaths in the community?
A. There were many attempts on health-related data collection mostly involving morbidity (sickness statistics) and not mortality (death statistics) among the Shia Khoja Ithnasheri community of Dar es Salaam. In 2016, the Mahdi Health Initiative (MHI) and Central Medical Board collaborated on reviewing mortality statistics of the community that occurred at Ebrahim Haji Charitable Health Centre (EHCHC) aiming to identify the main diseases that resulted in deaths in our community.

Q. Can you shed some more light on the MHI collaborated project?
A. We reviewed records of all deaths that occurred at EHCHC over a 15-year period from 2000-2016. In this review, all deaths that occurred during this time span were reviewed to identify important demographic and medical details. This was then analyzed with the objective of identifying the most frequent causes of death in the community.

Q. Any basic background information regarding the deaths that occurred during that time?
A. A total of 1053 deaths were recorded averaging 61.9 deaths per year. This translates to 5.2 deaths per month which in approximation is 1 community member per week. Among the deaths, 50 deaths were children of an average age 6.3 years with 23 children (almost half) within the first year of life. Among the remaining 1003 adult deaths, the average age at death was 67.8yrs and the highest number of deaths occurred at the age of 70 years with an equal male to female ratio.

Q. What were the major medical findings of this study?
A. All deaths that occurred were categorized according to the major organ system that was affected. Then each organ system was further analyzed to identify the leading disease that caused deaths within that category. A pie chart showing the major systems that contributed to the deaths is provided for ease of understanding.



Heart attacks and high blood pressure were the leading causes in the cardiovascular group. This was followed by Pneumonias and complications of COPD (commonly due to cigarette smoking) in the pulmonary group. Strokes were the most common cause the neurological group. Sepsis (rapidly spreading infection with shock) was the commonest cause among infectious diseases followed by severe malaria. Among cancers, breast cancer, colorectal cancers and cancers of the mouth and throat were the commonest. These are mainly attributed to community members behavior of smoking and eating pariki. Motor traffic accidents were common causes in the trauma group especially if associated with head injuries.

Q. Were there any limitation to this study?
A. Yes, A large number of diseases that are prevalent in the community which cause significant morbidity were not captured in this mortality analysis. We also depended on the certifying doctors' judgement as the data was acquired from death certificates.

Q. What were the take home messages from this study?
A. The high frequency of lifestyle related illnesses have been major contributors to death in this community. An inactive lifestyle compounded on the problems of hypertension and diabetes, and bad habits like smoking and pariki use are contributing heavily to deaths. They are all preventable with the lifestyle choices we make. We therefore recommended a multi sectoral approach where everyone is involved in curbing this problem from the doctors to the community members themselves. More screenings for chronic diseases and cancers were advocated along with heightened awareness and proactive health seeking behavior. Hopefully this data will show us the mirror and help raise the necessary awareness. Prevention is always better then cure.

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CONTRACEPTIVES

By: Fatemazehra Haider Rajpar

Contraceptives are methods used to prevent pregnancy by preventing fertilization or implantation. They are provided with the main aim of family planning so that couples can space out pregnancies, have children when they wish to do so and avoid complications that are associated with recurrent pregnancies. According to the Shia fiqh, family planning as a private measure to space or regulate the family size for health or economic reasons is permissible in Islam.

There are a number of different methods of contraception. Permissibility has been determined by the definition of the beginning of pregnancy according to the Islamic point of view, which is when the fertilized ovum is implanted onto the lining of the uterus. Therefore, whatever prevents implantation is permissible and whatever terminates pregnancy after implantation is an abortion and haraam.

There are a variety of methods available in the modern world. They constitute of natural and assisted methods. Natural methods include abstinence (calendar method) and withdrawal. Medically assisted methods include the barrier method, use of hormonal pills or devices (Oral contraceptive pills, injectables, intra-uterine devices (IUD) - commonly known as loop) or surgery (sterilization).

Most of the methods above prevent fertilization but a few, namely the IUD may also prevent implantation. Shia islamic sharia permits the use of contraceptives provided it is done respecting other laws of sharia i.e. hijab. Since the pregnancy begins at implantation, there is no problem in using IUD as a birth control device.

Use of hormonal methods to prevent pregnancy may cause certain side effects in some individuals. Some side effects include mood swings, hot flashes, weight gain, headaches, predisposition to blood clots. However, several studies indicate that these side effects cannot be generalized to the whole population. Thus, it is better to consult your doctor to obtain information specific to you.

There are several misconceptions regarding the use of birth control, such as that it can make you gain weight, cause major mood swings or may cause cancer. It is good to note that weight gain may be caused by high dose oral contraceptive pills and that most of the pills that are on the market are low dose and have been found to not cause significant weight gain. If your method is causing significant mood swings, it is best to consult your doctor who can then recommend another form of birth control for you. While some forms of birth control are associated with benign tumors, there is minimal evidence to demonstrate that contraceptives are linked with cancers.

Another common misconception is that birth control causes infertility and makes it hard to get pregnant. There are some forms of contraceptives that have an established delay in getting pregnant after discontinuation, but does lead to pregnancy after some time. However, none of the forms actually cause infertility except for the permanent surgical techniques (which also in some cases can be reversible).

And finally, one last misconception is that it is haram. The ruling from Ayatullah Sistani is that “It is permissible for a woman to use contraceptives to prevent pregnancy, provided that it does not harm her health in a serious manner, irrespective of whether or not the husband has agreed to it”. Therefore, it is upon the woman to decide whether she would like to use it.

‘When your Lord brought forth from the children of Adam (i.e., from their loins) their seed...’[7:172]

HIV STIGMA

By Zainab Alidina, MPH

Human immunodeficiency virus (HIV) is a virus that attacks a person's immune system and destroys important cells that fight disease and infection. There is currently no cure for HIV, but there are treatments to keep it under control. If HIV is not treated, it can lead to Acquired Immunodeficiency Syndrome (AIDS). The HIV epidemic has taken the lives of over 41 million people worldwide since HIV was first identified in the 1980s. There are currently approximately 38 million people worldwide living with HIV and over 70% of them live in Sub-Saharan Africa.

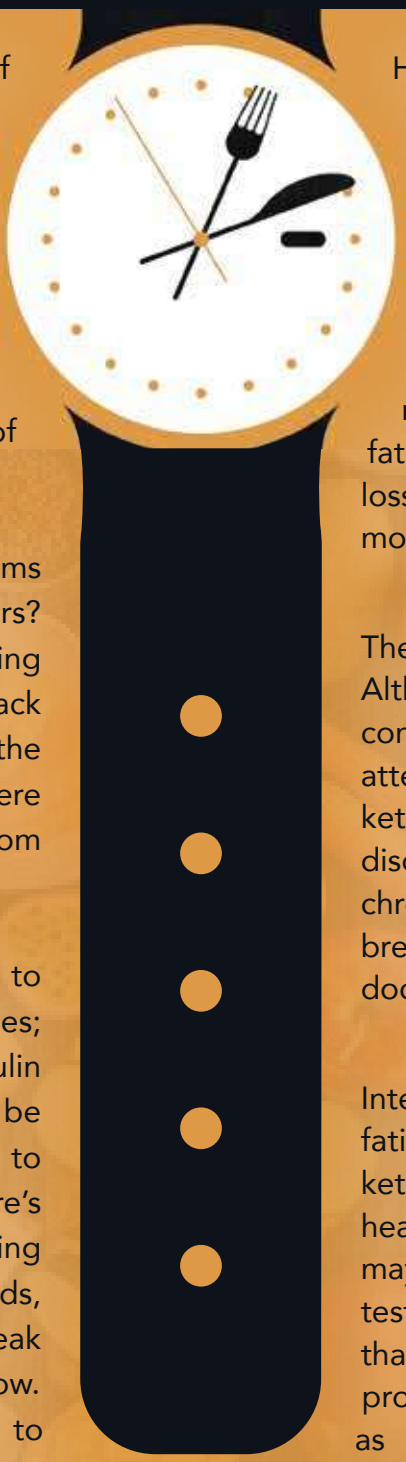
Previously, the HIV epidemic was considered to be the worst epidemic since the Black Death in the 1300s. Today, the outlook is much better, the epidemic has stabilized, and we are seeing multiple breakthroughs in drug development. People living with HIV can now live long healthy lives so long as they receive adequate medical care and maintain their antiretroviral therapies (ART).
HIV is found in bodily fluids of those infected with HIV. It primarily spreads from person to person through sexual intercourse and through transmission of infected blood (used needles, blood transfusion, etc.). The virus can also spread from a pregnant mother to their child before birth, during childbirth, or through breastfeeding. HIV can NOT spread by hugging, shaking hands, sharing toilets, sharing dishes, or casual contact with someone who has HIV. However, these misconceptions about how HIV spreads still exist, and it can lead to stigma and discrimination towards those living with HIV.

HIV stigma is rooted in the fear of HIV. This fear of HIV comes from misconceptions dating back to the 1980s. Another major misconception is that HIV is a disease that only certain groups get. This is not true -anyone can get HIV. Heterosexual men and women make up the largest percentage of people living with HIV in Africa. Because of these misconceptions, people living with HIV are discriminated against at work, in schools, in healthcare settings, and in their communities. HIV stigma and discrimination leads to people not being treated with dignity and respect. There are many stories of people living with HIV being fired from their jobs and children with HIV not being allowed to enroll in certain schools. Some also get disowned by their families and get singled out in their communities.

The fear of stigma and discrimination leads people to not get tested or treated for HIV. The delay in testing and treatment could lead to an early death. It can also increase transmission of HIV because those with HIV do not know they have HIV and can unknowingly spread it to others.
What can you do to reduce HIV stigma? You can talk openly about HIV and help empower those living with it. It will give others the opportunity to learn more about HIV and correct any misconceptions. Step in when you see someone being discriminated against due to their HIV status. Help those living with HIV get the support system they need to live a healthy life.

INTERMITTENT FASTING AND KETO: WHAT'S IT ALL ABOUT?

Dr. Fatema A Hasham, MD



Intermittent fasting is a pattern of eating that involves voluntary abstaining from food, either completely or restricting to a few calories followed by a window of eating. There are many types of schedules that can be followed but the most popularized is the 16:8 method that alternates 16-hours of fasting with an 8-hour eating period.

Sounds similar right? Haven't Muslims been doing this for thousands of years? Well, both yes and no. Intermittent fasting allows drinks such as black coffee, black tea, herbal tea and water throughout the day as opposed to the Islamic fast where one abstains from food and drink from dawn till sunset.

The main aim of intermittent fasting is to allow the body to regulate hormones; increasing growth hormone and insulin sensitivity, allowing sugars to be metabolized and facilitating the body to repair itself at a cellular level. But here's the catch: if you binge eat in your eating window, eat processed and sugary foods, your body will be busy trying to break them down during your fasting window. To achieve the best result, you have to have nutritious and healthy food during your eating window and try to attain a calorie deficit for the health benefits.

Alongside the trend of intermittent fasting, many people attempt the ketogenic diet or "keto" to attain better outcomes especially for weight loss.

Keto is essentially a nutritional diet with high fat, moderate protein and low carbohydrate designed to help the body burn fat easily.

How? In the way we usually eat, the body derives its energy from carbohydrates as they break down easily releasing sugars which gives us energy. However, by restricting carbohydrates, the body enters a state of ketosis and turns to break down fat for energy, making the body more adapted to the release of stored fat in the body facilitating fat and weight loss. The two combined then makes it more effective if you're looking to lose weight.

The big question: can everyone do this? Although both are surrounded by controversies, essentially everyone can attempt both intermittent fasting and keto, but if you're prone to eating disorders, on long term medication for chronic illnesses, pregnant or breastfeeding, you should consult a doctor before attempting any restrictive diet.

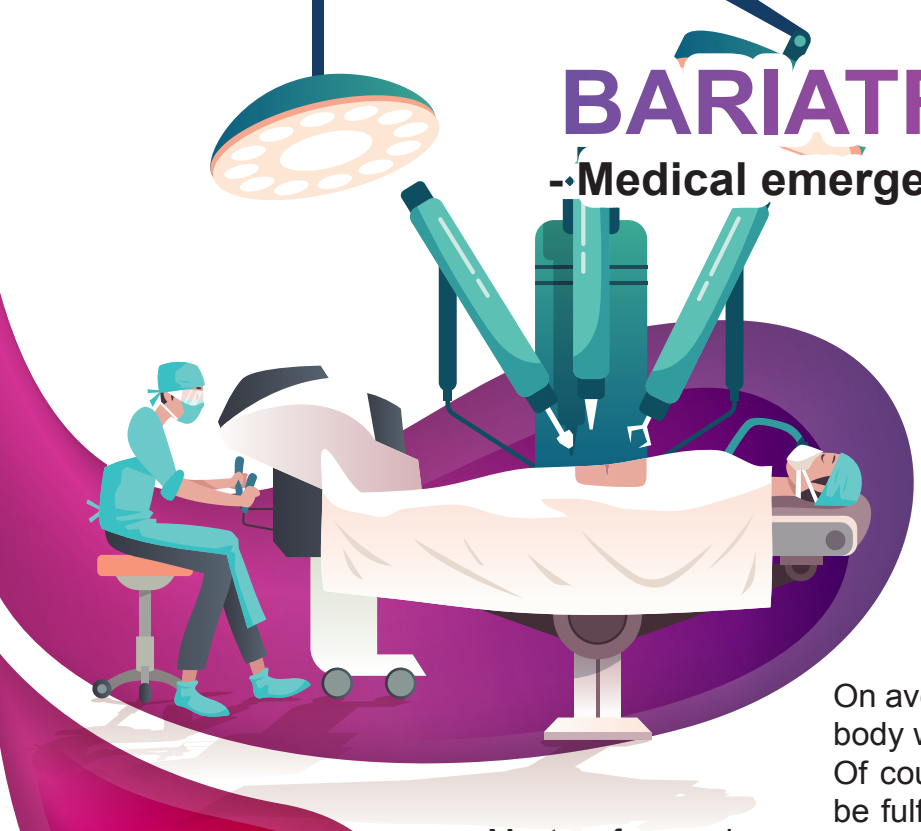
Intermittent fasting can sometimes cause fatigue and dehydration. Individuals on a keto diet usually get keto flu (tiredness, headache and nausea). Both, long term may lead to eating disorders but testimonials and medical research show that in addition to weight loss, the two, provide several other health benefits such as blood sugar control and more sustainable energy throughout the day.

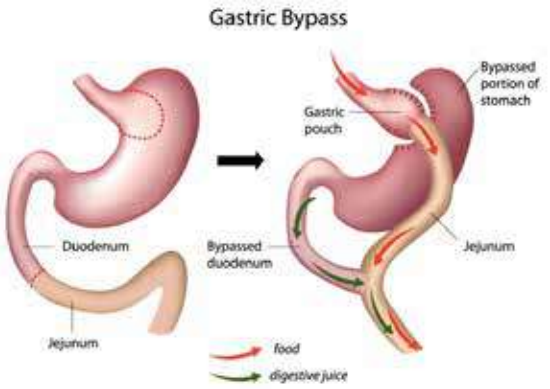
Both ultimately restrict calories and results can be seen within a short period of time. But is it sustainable in the long term? No substantial medical research has been conducted to see long term effects, ideally if someone were to continue intermittent fasting or keto for longer periods combined with exercises, then probably it would be sustainable. That said, the best advice would be for one to research and talk to a nutritionist or a doctor before beginning the journey.

BARIATRIC SURGERY

-Medical emergency or Cosmetic Solution?

Ali Murtaza Bhalloo





Most of us have probably heard one of our parents talking about how an aunty or uncle has recently gotten their tummy tucked or had their stomach closed. What your parents were probably referring to was a gastric bypass surgery which is a type of bariatric surgery which involves dividing the stomach into a smaller top portion and a larger bottom portion. The small intestine is also divided into two and the lower half of the small intestine is connected to the smaller top portion of the stomach while the upper portion of the small intestine is then reconnected to the lower part of the small intestine. There are two other types of bariatric surgery, but this is the oldest and the most common type.

So how does this actually work and help with weight loss? As with other types of bariatric surgery, the newly formed stomach pouch is smaller and holds less food, which means fewer calories are ingested. Additionally, the food does not come into contact with the first portion of the small intestine, resulting in decreased absorption. Most notably, the modification of the food course through the gastrointestinal tract has a profound effect on reducing hunger, increasing fullness, and allowing the body to reach and maintain a healthy weight. The impact on hormones and metabolic health often improves adult-onset diabetes even before any weight loss occurs.

On average, around 60 to 70 percent of excess body weight is lost by gastric bypass patients. Of course, there have to be a few conditions to be fulfilled. Your average overweight person will have to resort to normal weight loss methods such as diet and exercise. One can get the surgery done on them if they have a body mass index (BMI) of 40 or higher (severely obese), or have a BMI between 35 and 40(obese) and an obesity-related condition, such as heart disease, diabetes, high blood pressure or severe sleep apnea. Basically, a Tanzanian woman of average height (157 cm) would have to weigh at least 86 kilos and a Tanzanian man of average height (166 cm) would have to weigh at least 97 kilos to qualify for bariatric surgery. You also need to undergo an extensive screening process before the surgery

While bariatric surgery is highly effective, you have to consider that it is a major procedure that can pose serious risks and side effects. "Dumping syndrome" is one of the most common and is experienced with some foods, particularly after meals high in carbohydrates/sugar. This can cause symptoms such as nausea, dizziness and cramps. Other long-term risks include low blood sugar, ulcers, hernias and bowel obstruction. You need to understand that bariatric surgery gives you a second chance to live a healthy life and that having good eating habits and regular exercise becomes even more important after the surgery. For many, bariatric surgery is considered the 'last resort.' If it does not result in the quality of life improvements one expected, it could lead to despair. Therefore, it is crucial to educate patients about these risks and monitor them postoperatively as well..

Coffee Vs Chai
Which one is better?

Tehreen Esmail

Are you a Chai-Lover? Or can your day not function right without that cup of Coffee? For caffeine fanatics, here's some fun facts on the two beverages that have had people in debate for centuries.

Chai:

- Discovered in China in 2737 BC, it is currently one of the most popular beverages worldwide, second only to water.

- Derived from the leaves of a plant called Camellia Sinensis. There are different varieties of the plant – spread throughout a variety of countries.

- Green tea has less caffeine than black tea, and larger amounts of EGCg, a powerful anti-oxidant.

- Tea contains L-theanine, a chemical that metabolizes caffeine slowly, giving you sustained energy

- Theaflavins and thearubigens of black tea actually carry similar health benefits to green tea.

- Rooibos is a caffeine-free variety of tea sought for its additional health benefits.

- Over 3 million tons of tea is produced every year and the Lipton Tea Factory in Jebel Ali, Dubai, produces around 5 billion tea bags a year

- Tea polyphenols have been linked in research to increased attention and focus (Theanine), cardiovascular health, protection against Alzheimer's and Parkinson's

- The spices in Chai Tea have various health benefits, and have been used for thousands of years.

- Chai is mentally clarifying and energizing yet calming at the same time. - Chai gives you a subtle "pick me up" without nervousness, jitters. Try chai for a week.

- A typical cup of chai tea prepared contains approximately 40mg of caffeine

- The caffeine interacts with a component of tea known as tannin, which has a calming effect on the nervous system. This causes the caffeine to be absorbed much more slowly, avoiding the caffeine "shock" and inducing a calm, relaxed yet focused state characteristic of alpha brain wave patterns.

- Tea is better for the environment.

- It is estimated that over 1100 cups of water are required to produce a single cup of coffee. On the other hand, only about 1/10th of that amount of water is needed to produce a cup of tea.

- Tepidophobia is an actual disorder - the fear of a badly made cup of tea

Coffee:

- Finland consumes the most coffee in the world per capita, with eight to nine cups being the normal and some drinking up to 30 (not recommended).

- Coffee was discovered by a goat herder who noticed that goats became energetic after eating berries from a certain tree and didn't want to sleep at night. He reported his findings to the abbot of the local monastery, who made a drink from the berries and found that he stayed alert through long hours of evening prayer.

- Brazil produces around 40% of the world's coffee, far surpassing other coffee producing countries. They've managed to hold the top position for the last 150 years and their coffee plantations cover some 27,000 km2. I don't think any other country will be taking their crown anytime soon!

- Coffee is always decaffeinated in its green (unroasted) state but can never be 100% caffeine free. After coffee beans are decaffeinated, the leftover caffeine is often sold to soda and pharmaceutical companies.

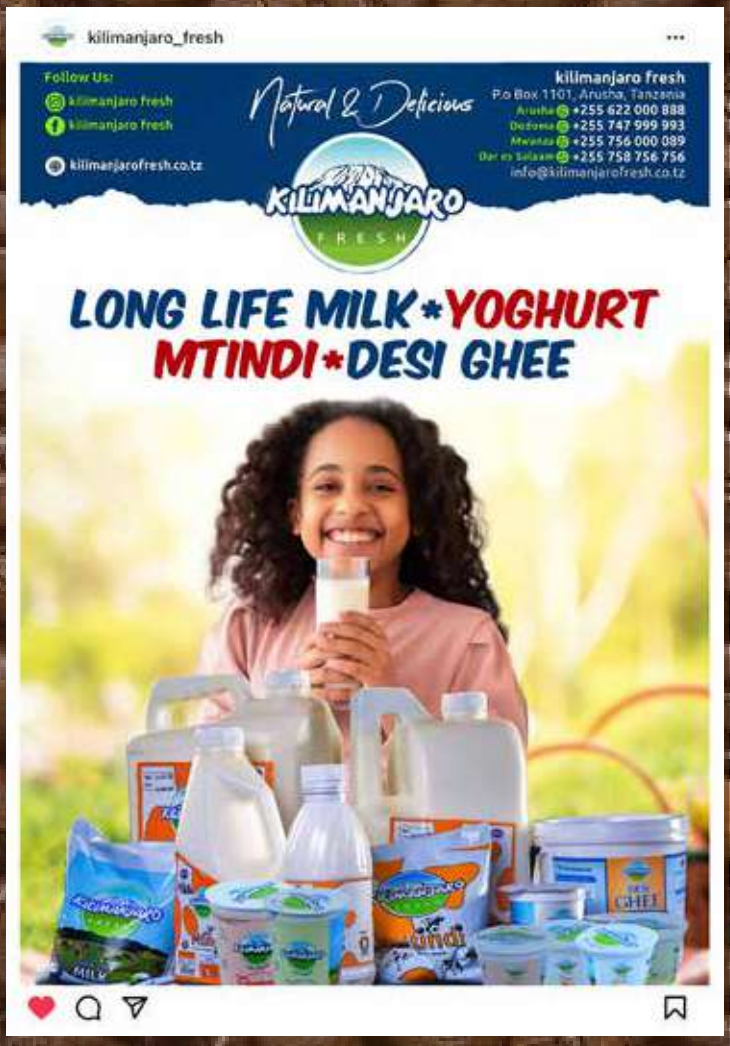
- The world's most expensive coffee, Kopi Luwak, comes from animal poop. More specifically, from the Asian palm civet, who eats the coffee cherries, which are fermented as they pass through the civet's intestines. This coffee is sold at up to $2800 for a kilo!

- Drinking coffee first thing in the morning? Bad news. Your body has high levels of cortisol in the morning and caffeine can interfere with the production of it. It is said that two to three hours after waking up, between 9:30 to 11:30am for most, is the best time to drink coffee when your body's cortisol levels start dropping and need a boost.

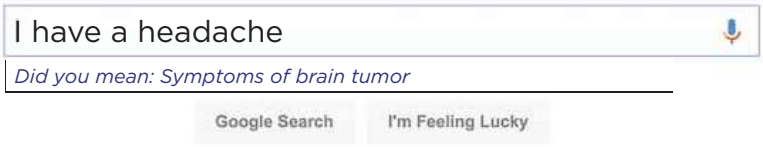
- The Ottoman Sultan Murad IV deemed coffee drinking as an immoral activity. He believed that coffee was promoting social decay and ultimately, discord in Istanbul.

Due to the seriousness of the matter to him, this Ottoman Sultan declared coffee drinkers are punishable by death. Unfortunately, he was not the only ruler who cracked down on coffee drinking. But Murad IV was deemed the most brutal and successful in his efforts to prohibit the black brew. However, after further discussion among Islamic figures, there was no conclusive evidence to prove that coffee or caffeine as an intoxicating substance. Unlike drugs and alcohol, caffeine is considered a mild stimulant. Hence, in 1542, Ottoman Sultan Selim I allowed coffee again.

Here's a fun thing to try - Gather up a bunch of friends or family and run a poll on Chai VS Coffee to see which beverage stands out in your close circles.
Enjoy!



Who is....



I still remember her worrisome face as she walked through the doors of the emergency medicine department. She was just a 26-year-old lady with health concerns that 'someone' did not appropriately address. Who is this someone and where does he come from? Is he willing to take responsibility if she dies? Let's try and solve the mystery.
Getting back to the young lady, there was something very unique about her. Despite not having a medical background, every complaint she had accompanied a probable diagnosis. She very proudly said, "I have a cough. It could be pneumonia or tuberculosis; I read a lot about my symptoms on GOOGLE!!", without recognizing the punch strength of these words.

For once, we were shocked to hear this statement. One of the medical students jokingly asked her, "Didn't you ask your Dr. Google about the treatment? " To this, she very confidently replied, "Guess what, I have tried everything! No wonder I am here now." I still recall her sarcastic tone when she said this.

This lady is just one out of thousands out there who have promoted our search engine, Mr. Google to Dr. Google without taking him to medical school! How ironic! This system could be helpful as a symptom checker. However, seeing a human doctor rather than a robotic one has a totally different ambiance. Human doctors went to school after all, at least someone can be blamed if you die.

Studies suggest that people who solely rely on open search engines for self-diagnosis and treatment (most popular being our Dr. Google), end up at the hospital either because of the use of wrong medications leading to toxic side effects or in a worst case scenario, the disease progressing to a stage that is almost irreversible.

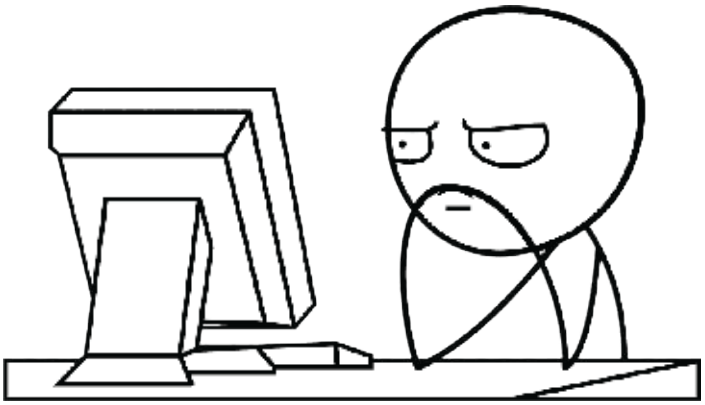
How bizarre! Some even end up with drug resistance due to the use of a cocktail of antibiotics like a pack of colourful skittles or M&Ms.

Now, with regards to our patient, she appeared to have a psychiatric disorder known as hypochondriasis. Patients with this disorder are always obsessed with the idea of feeling sick with some undiagnosed disease.

They think something is wrong with their health and no doctor is genius enough to successfully come up with a diagnosis. We take them as a high-risk group who are easily convinced to have severe diseases such as, brain or blood cancer. They could easily be frauded into using unnecessary and highly toxic medications such as chemotherapy.

Take home message:

1. Regardless of how far technology goes, it can't replace the human touch.
2. Be home, be safe but be in the right hands! (Call your doctor and make an appointment).
3. Don't die without leaving behind someone who will be curious to solve your death mystery. (PS: Won't be your Dr. Google).



WORD SEARCH

R	A	T	E	I	C	E	C	M	E	D	O	R	E
E	X	E	R	C	I	S	E	E	P	O	E	C	R
M	R	D	N	R	D	U	H	D	O	C	D	I	A
E	T	E	C	P	R	R	O	I	C	T	T	A	C
R	R	U	S	R	R	G	S	C	S	O	N	X	H
G	O	S	E	C	R	E	P	A	O	R	E	T	T
E	L	X	P	O	C	R	I	T	H	I	D	E	L
N	C	U	Y	A	G	Y	T	I	T	O	I	N	A
C	S	M	C	G	T	C	A	O	E	D	C	U	E
Y	N	T	T	O	E	I	L	N	T	Y	C	R	H
Y	R	C	I	Y	S	N	E	I	S	R	A	S	T
Y	R	E	V	O	C	E	R	N	G	L	E	E	R
F	I	R	S	T	A	I	D	E	T	R	R	O	T
C	S	E	C	E	N	O	I	T	C	E	J	N	I

EXERCISE
STETHOSCOPE
OXYGEN
PATIENT
DIET
HOSPITAL
DOCTOR
EMERGENCY
INJECTION
NURSE
SURGERY
MEDICATION
HEALTHCARE
FIRST AID
RECOVERY
ACCIDENT

ANXIETY
- Not an Accessory

Nayaab-Zahra Zulfikar Parmar

Disclaimer: Please close all the tabs in your head before reading this. All information is based on conversations I had with a licensed psychiatrist and a person with an anxiety disorder.

Picture this. You're walking up to get on stage, in front of more people than you're comfortable with. You're on ward rounds at the hospital as a medical student and the senior is firing questions at you. Your family members are asking you, a first-year medical student, for advice about that weird rash on their leg. You're a goalkeeper for a premier league club and you're trying to make that 11th penalty for your team (after failing to save 11 penalties by the other team). Are those sweat stains I see there? Better change out of that shirt.

Everybody you have ever known has had anxiety. It is a physiological mechanism, which is fancy speak for 'it's pretty natural.' Your body uses anxiety to cope with the situation at hand, and then you need something else to cope with your anxiety- but that's a whole other story.

For a lot of people, this feeling of anxiety can be overwhelming. It could be a constant state of nervousness, accompanied by a side order of panic attacks, and/or be mistaken for a heart attack (or other cardiac problems). A really severe case of anxiety doesn't even have to have something to trigger it. Furthermore, unlike the anxiety that the general population faces, severe/acute anxiety is going to seriously disrupt your day. A case of severe anxiety could have someone go completely out of their way to avoid whatever they feel is triggering the attack, even if that means them missing a few days of work or disruption in their daily routine. For example, my anxiety could be triggered by something in the bathroom but true functional impairment would be if I skipped showers because of it. Thus, when health care professionals talk about someone who is 'struggling with anxiety,' they're referring to severe/acute anxiety.

Currently, we have a lot of individuals who diagnose themselves with anxiety disorders. Is it trending? Perhaps. If you were to take a scroll through social media platforms, you'd definitely find someone announcing a list of their self-diagnosed conditions. The issue with this is that it takes away the weight of the experience of those who actually live with these serious conditions, and can lead to self-medication. It is already difficult for people suffering from anxiety to seek help or share their experience. Please don't assign yourself a mental health disorder to fit in or because it accessorizes your Gen Z identity. Anxiety is difficult enough to deal with without people second-guessing whether or not you're faking.

If your doctor, however, diagnoses you with an anxiety disorder, then you definitely want to take that seriously. Not every case of sweating and uneasiness is an anxiety attack. However, it's helpful to talk to someone about it if you're not feeling yourself. You can experience severe/acute anxiety without it being an anxiety disorder, and it can definitely be a terrifying and draining ordeal.

Anytime that you (or people close to you) notice that you don't seem like yourself, that is something that needs to be unpacked. Here, it would be more than helpful to talk to someone who you feel can help. While anxiety disorders are over-diagnosed by the general population, they tend to be misdiagnosed or under-diagnosed by non-psych health care professionals. This is why regularly checking in with someone in the mental health field, even if they're not a licensed psychologist or psychiatrist, is super helpful. Regular check-ins with a therapist, counselor, psychologist or your psychiatrist is quite beneficial. You can get someone to talk to even if you don't feel like you need fixing. Mental health professionals don't 'fix.' They help you live more fulfilling lives.

If you feel helpless or constantly anxious or feel like hurting or harming yourself at any point, feel free to visit www.ask.or.tz/help or text +255713555055 to get ANONYMOUS help for free. We are all in this together :)

SUBSTANCE ABUSE REHABILITATION

Dr. Shaina Yusuf

According to Wikipedia, drug rehabilitation is the process of medical or psychotherapeutic treatment for dependence on psychoactive substances such as alcohol, prescription drugs, and street drugs such as cannabis, cocaine, heroin, or amphetamines. The general intent is to enable the patient to confront substance dependence, if present, and stop substance misuse to avoid the psychological, legal, financial, social, and physical consequences that can be caused.

This process may differ from person to person while addressing the root causes of dependency, the extent of dependency, and years of use. A lot of national and international requirement is minimum of 3 months as years-long dependence cannot be treated in a short time. Quitting something that the body and mind are dependent on cannot be done at home or a familiar setup where the person can manipulate their needs for the substance dependence. This is a family disease where the family members are playing roles to feed and sustain the dependence of one person.

The process starts with medical detox, which may take up to 2 weeks depending on the substance. This is followed by psychotherapy, family therapy, knowledge and insight of addiction, and relapse prevention. It takes a long time to understand the problem and change his lifestyle to prevent going back to it. All this cannot be done from home; it should be done professionally under a controlled environment, at least in the beginning where they go through withdrawals for stopping.

Throughout the rehabilitation process, three sides (client, family, and professionals) must be working together towards a common goal of quitting the substance; families can be supporters instead of being enablers for the dependence.

Recovery from substance dependence doesn't stop at the end of the rehabilitation stay. This is followed by the aftercare program, which ensures the client has a sponsor who is a former addict and understands his life challenges after rehab treatment. Aftercare helps him become a solid individual to face the world with challenges without going back to the substance. There are external physical meetings across the cities to attend and online sessions daily to get hope, courage, and strength to remain clean.

All this is only possible if we agree that there is a problem and something needs to be done about it to control it if not stop it. Denial and stigma are the main culprits in society to help those who need help while it exists, making the problem worse.

Substance dependence is a disease classified internationally, and it needs professional help. If this is understood and help is sought appropriately, the problem can be controlled just like any other medical problem. After a medical concern is discovered, professionals give the necessary attention; there are lifestyle changes and follow-up advice given on discharge. If followed well, the condition is controlled. Similarly, substance dependence is treated like that. It can happen to anyone. Help is available. Reach out!

FIRST Aid

First aid is the action taken in response to somebody who has been **injured** or suddenly fallen **ill**. A **first aider** is a person who takes control of the situation taking care to keep everyone involved safe and cause no further harm.

FIRST AID PRIORITIES

Before going through some minor and necessary first aid situations, we must understand the 'First aid priorities':

- Assess situation
- Protect yourself
- Arrange for appropriate help
- Comfort and reassure the casualty
- Assess the casualty – identify nature of injury or illness
- Prevent cross infection or contamination

CASE SCENARIOS

EXTERNAL BLEEDING

What to do?

- Expose the wound – by removing any clothing.
- Apply direct pressure over the wound – using dressing or clean gauze. If there is any object in the wound apply pressure on either side of the object.
- Maintain direct pressure on wound – raise and support injured limb above the level of casualty's heart to reduce blood loss
- If the bleeding is severe; help the casualty lie down – raise and support casualty's legs above the level of their heart.
- Call emergency help immediately
- Secure the dressing till further help arrives; firm enough to maintain pressure but not to stop the circulation.

ARTERIES

VEINS

First aider's main aim during a severe external bleeding is to:

- Control the bleeding
- Prevent and minimize effects of shock
- Minimize infection
- Arrange urgent help to the hospital

NOSE BLEEDS

What to do?

- Tell casualty to sit down and tilt their head forward to allow blood to flow from nostrils – ask the casualty to breath from their nose and to pinch the soft part of the nose for around 10 minutes.
- Advise the casualty not to speak, swallow, cough, spit or sniff which may disturb the blood clotting in the nose.
- After 10 minutes ask the casualty to release pressure to check if bleeding has stopped – if it hasn't stopped ask the casualty to reapply pressure on the soft part of the nose
- After the further 10 minutes, if the bleeding has stopped, with the casualty leaning forward cleaning around the nose with lukewarm water. Advise the casualty to rest for a few hours and not to blow their nose.
- If the nosebleed is severe, or lasts longer than 30 minutes, please take the casualty to the nearby hospital.

First aider's main aim during a nosebleed is to:

- Maintain an open airway
- Control the nosebleed

FIRST Aid

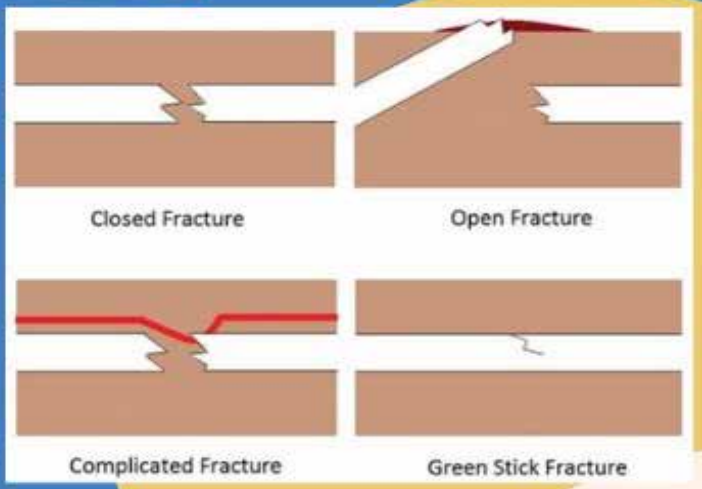
First aid is the action taken in response to somebody who has been **injured** or suddenly fallen **ill**. A **first aider** is a person who takes control of the situation taking care to keep everyone involved safe and cause no further harm.

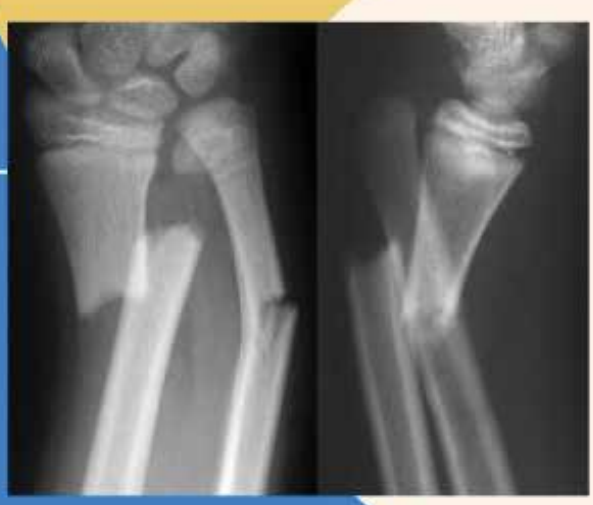
CLOSED FRACTURE

CASE SCENARIOS

A **break** or **crack in a bone** is called a fracture. Fracture may result from trauma, a fall, twist or indirect force. The main question is how do you recognize a fracture?
Many a times there are **recognizing signs** which can guide the first aider to identify a closed fracture.

- Deformity, swelling, and/or bruising at the fracture site
- Pain and/or difficulty in moving the area of fracture
- Shortening, bending or twisting of a limb
- d. Difficulty in moving a limb normally or at all such as not being able to walk





The first aider's main aim during a case of closed fracture is to:
Prevent movement at the fracture site

- Arrange immediate transportation to hospital with comfortable support for the casualty

BRACES

Tatheer Shabbir Sachedina

When we talk of orthodontic treatment, we mean treatment aimed at preventing, diagnosing and management of malocclusions (misalignment of teeth and jaws). More commonly used appliances for this purpose are the orthodontic brackets, what we usually term as "braces". However, there is a lot more to it and there are varieties of other appliances that are very interesting to know. Hence we would ask ourselves who actually needs braces and for what purpose?

The following are the indications for placement of braces:

- Presence of spacing in between your teeth.
- Presence of crowding (teeth overlapping one another that leads to rotation of one or more teeth).
- If a tooth is out of place and needs to be returned to the dental arch.

It is noteworthy that not all malocclusions require orthodontic treatment unless it affects your ability to clean your teeth properly, compromises functional ability or lowers your self-esteem.

What is the appropriate time to seek treatment?

The best time is during the growth stage, just before the pubertal growth spurt. This is when the child is in the active stage of growth. Any growth modifications will be readily incorporated compared to when he/she is already an adult.

So parents, take your children to an orthodontist when they are still young. Preferably, from the age of 7 years, especially when any malocclusion or jaw discrepancy is suspected for better results. It is at that point where growth modifications can be made by using simpler options.

In case of any oral habits such as thumb sucking, tongue thrusting or nail biting, a habit breaker will be provided so as to prevent possible malocclusion development in the near future. It is a removable appliance that reminds the child every now and then not to engage in their usual oral habits.

Can we prevent them?

Some malocclusions are developmental such as inheriting large jaws from one parent and small teeth from another that will cause spacing and vice versa is true. Thus, this is difficult to prevent.

The acquired (due to environmental factors) malocclusion can surely be prevented if the oral habits are controlled in time and that means before eruption of permanent teeth.

Furthermore, the child should be taken to the dentist regularly (every six months) to see if the baby (deciduous/milk) teeth are shedding as required and the permanent teeth are erupting in time. Retained deciduous dentition is another cause of malocclusion. Prevention is better than cure well explained by the saying that goes, "A stitch in time saves nine."


THE KIDS CORNER

"...and as I watched his eyes roll up into his head and heard him gasp to try and take in every atom of oxygen pr giving way to the hypoxic damage and I could see the life being sucked out of him..."
"Room 12 for this one! Let's get that one on dual flow! Kuna incoming wawili for high flow..."
For over a year now, this has been the theme and the words ringing in the ears of the Emergency Department feeling so vulnerable. I found myself holding a laryngoscope, about to intubate a pregnant woman with COVI would be torn apart if asked to choose between mother or baby; while fearing for the safety of my own when I ICU and HDU beds all full. The ED full with patients lodging waiting for space. I had to reject accepting pat constraints while charting out prescriptions with what the latest trend of 'treatment' suggested, scratching my h available. As the world sent their love to the front-liners; we rode wave after wave attempting to keep at bay a the deadly pandemic. There were moments of hope, when I saw a patient who was rolled in on a stretcher ox smiling. But these happy moments did not last long. Like soldiers drudging onwards; EM physicians became Cov they still had strokes, they still had heart attacks. With the vaccine, we now have a glimmer of hope...that one da day COVID will be a tale to tell.

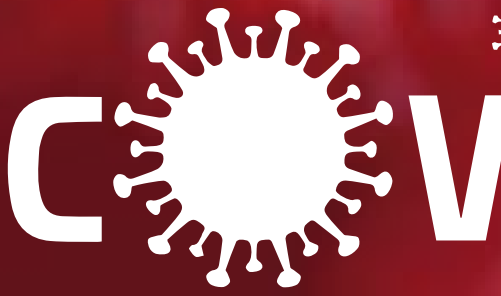
Dr. Hussein K. Manji
Emergency Medicine Specialist

Covid 19 tested our faith, courage, patience and stren
This turn surely taught us a lot as we live in a materialisti
A world where we forget there is a supreme power pl
achievements… Little did we know that the pandemic w
us all to slow down, live one day at a time, cherish o
unforeseen…… United we stood, support we provi
established….. Honoring it is to be part of a communi

A murderer
A murderer who got us, transformed into maze runners, Between gaps of graves of its victims.
A killer
A killer who chose no age, race or background. A killer who created tears, In a teacher's eye
Begging "Get up, Greet me! Please"
A slayer
A slayer who made a son, with his hands together, beg forgiveness to his father's corpse. A slayer who made a daughter hang on to dear life, on her father's favorite chair.
A destroyer
A destroyer who created, an exhaustion of words of wisdom and motivation. A destroyer who made one's peace and closure, with his family and faith.
A SMALL CELL.

An executioner
An executioner who wanted us to start counting "Our first" everything without him. An executioner who dented our faces with lines and creases of masks which are still on till forever.
An assassinator
An assassinator who created, Constant... Guilt. An assassinator who made us grateful and lucky
for humor. Otherwise, we too, I don't... even know.
A disease
A disease that engraved, every painful bad moment in us. And no matter how bad we grieve or don't want It to happen, life goes on.
Many names for a small cell.
A cell we call:
A murderer, a killer, A slayer, a destroyer,
An executioner, an assassinator. None other than, A disease.
A guilty one, Responsible. Corona...

- Siraaj Karim Manji



"...having hung up another bag of IV fluid, and done s him desaturate, and literally cry for air despite bein prongs could provide. It had been established that t ventilators available. I stepped out of the room to nothing more you can do for him' he pleaded. I felt s masks and gown. This young man could not eve precautions in place. I decided to hand him some Pl pray, he nodded so quick, as if he could sense the he Mr. E, a son, a father, a husband, a brother, a grandf breaths as we folded our glove cladded hands in pr hardest things I've had to ever do... "

Zainab Karim - Alimohamed - Critical Care Nurse.

The emptiness is engulfing
By Sakina Datoo

Last year at this time, I called my dad complaining that several of my efforts to make ladoo fatya on Hazrat Abbas day weren't bearing fruits. They were turning out ok, but not like those he made. He gave me step by step instructions and voila, I achieved the pleasing results.
My dad's presence was very strong in my life. Whether it was asking for a recipe, or sure-proof duas when I was in a pickle - or when I needed that sound advice when I was stuck in life, he always came through.
But I lost my dad - to Covid. My biggest fear from the day I heard of Corona Virus, was of protecting my papa. I watched as the UK started the massive drive to prioritize vaccine for its elders. But it didn't reach my dad on time. He wore the mask everywhere, but because not everyone else did, the virus found him.
The emptiness within me isn't something I can explain. The regret of not being able to meet him, hug him, serve him, tell him how much I loved him during those last days as he got ill doesn't leave me. The horrors of the isolation in which his days in the world ended, haunts me to no end. I know he awaits me on the other side, but the pain of loss is acute.
Protect your loved ones. Get them the jab.

esent in the air; it's like I could see his brain cells

. Covered in layers of protective equipment; yet
D, knowing very well in my head how this family
go back home later that night. I looked around,
ients in person or over the phone due to space
ead trying to make sense of the limited literature
nd not drown; all the while losing fellow staff to
ygen deprived and in distress, actually walk out
idologists; meanwhile people still had accidents,
y we may take these masks off and hopefully one

The unforeseen - a 360 degree turn

*ngth as we faced a 360 degree turn which we won't ever forget…
c world, caught up in our daily live routines and commitments….
anning it all for us while we are busy planning ahead for new
would put a halt to our plans, our lives, our routines…. And teach
ur family, the small magical moments and yet prepare for the
ded, emergency response teams were set up, help lines were
ity where we put others before ourselves and all set goals were
accomplished…*

~ Dr Zohraida Karim

ID-19

some routine nursing care for Mr. E, I just stood there, watching
g on the maximum amount of oxygen a face mask and nasal
here was nothing else we could do for him, there were no free
find his grandson looking at me desperately 'is there really
sick to my stomach, deprived of air myself behind my layers of
en comfort his dying grandfather because of the isolation
PE and asked him if he would like to step inside the room and
esitation in my head - lest I change my mind. So, we stood near
father, a friend, we watched him gasp in pain and take his last
ayer...I'm not sure who I was praying for, but it was one of the

"...because of COVID, online lectures were initiated and adapted. Not a suitable substitute at all for med school, especially when you are trying so hard to learn anatomy without having touched a cadaver. Although lockdown and social distancing is the right thing to do, I believe I would have learned so much more experiencing an interactive setting.."

- Raidah Gangji - Med Student

First Wave- As people were hesitant to go to Hospitals- It was very overwhelming for us at the Pharmacy. As people were always on the edge. *Fear of the unknown* I think because the mode of treatment wasn't that clear. There were also many fatalities. There was a phase when we were selling 1 body bag and 2 Hazmat suits every half hour for those who passed away at home.

Second Wave- As it was still a Taboo to talk about the existence of Covid-19 in TZ, it was also a difficult one to serve customers in all that protective gear. However, there was a minority who were coming to terms with it.

Third Wave- People have adapted. They are more open to talk about what is happening and willing to go to hospitals sooner, as I guess the mode of treatment is working. Hopefully now with the vaccines available and measures in place, things will ease down soon. The task is to make sure everyone takes the shot!

Bhavika Sajan - Branch Manager - JD Pharmacy

The COVID-19 disease has irrefutably changed the professional as well as personal lives of every individual over the past two years in numerous ways & it was no different for me.

The mentally, physically & emotionally debilitating disease took my career on an entirely new dimension- to use existing skills around something unheard of before. As a dentist, we're always directly exposed to a patient's oral structure & during this pandemic, it's raised great challenges to perform any procedure- moreover aerosol ones.
It was skillfully challenging as much as it was overwhelming to decide about taking on a procedure with the risk of exposure while the patient presents critically ill. But it's also during these unprecedented times, that the oath we take while embarking on our medical career's echoes- it naturally gives you the courage to explore, refine & implement advanced skills.

Through the years, we have learnt a lot from each other in the arena and molded our careers to fit the shape of this virus and we only pray for the ability to continue unleashing different ways where we can be of service to our patients- to the global community!

Dr Maisam Bharwani - Dentist

IMPORTANCE OF SCREENING

Maysam Hussein Manji

Screening refers to examining or testing a group of individuals to separate those who are well from those who either have an unidentified disease or defect or are at high risk. This article will provide an overview of the non-communicable conditions in our community with stress on diabetes, hypertension, hypercholesterolemia, and cancer, referred to as non-communicable diseases (NCDs).

People of all age groups, regions, and countries are affected by NCDs. These conditions are often associated with older age groups, but evidence shows that more than 15 million of all deaths attributed to NCDs globally occur between 30 and 69 years. Routine check-ups with a doctor are recommended as follows: Once every three years if you're under the age of 50 with good health and once a year when you turn 50.

Risk factors of NCDs are divided into three main groups; Firstly, Modifiable behaviours (that can be reduced or controlled by intervention) such as tobacco use, physical inactivity, unhealthy diet, and the harmful use of alcohol. Secondly, the non-Modifiable risk factors. These cannot be reduced or controlled by intervention. For instance, age, gender, race, and family history (studies have reinstated this as a key player). Lastly, Metabolic risk factors contribute to four significant metabolic changes:

- Raised blood pressure.
- Overweight/obesity.
- High blood glucose levels.
- High levels of fats in the blood.

Late complications of diabetes, hypertension and hypercholesterolemia include impairment of vision, kidneys, nerves, and blood supply, leading to heart attack and stroke. On the other hand, cancer in the long term leads to hormonal changes in the body, bone loss in the affected areas, and learning or memory problems, to mention a few.

In conclusion, people with a non-communicable disease may show no symptoms until the disease has progressed substantially. The first manifestation may be a heart attack or stroke. Screening of asymptomatic individuals for key risk factors can identify people at high risk and offer the possibility to prevent disease progression; hence, effectively implemented medical screening can prevent disability and death and improve the quality of life. The poor prognosis for people with diseases diagnosed at an advanced stage highlights early detection's positive impact, making it a meaningful strategy.

HEALTH INSURANCE

A MARKETING SCHEME OR AN ACTUAL REQUIREMENT?

Dr. Aamir M. Kanji, MD

In recent times insurance has become a compulsory need for many aspects of life. A few examples include motor vehicles, life, property, fire, liability and many others. Insurance companies just like any other business intend to make profit. The business model should not be confused with that of a charity or non-profit organization. However, just like any business it also provides tangible benefits to its consumers. There is a certain give and take for every trade.

A health insurance scheme requires you pay upfront a certain amount of cash in exchange for health services which include a wide range of specialties. It also provides access to a number of laboratory services as well as medications and other medical equipment. Some insurance schemes also provide rehabilitation services such as drug addiction programs depending on the country you live in. Health insurance companies usually have different categories of age groups in the schemes they cover. The main reason for this is because different categories require different types of health services. The geriatric population pay a higher fee per year due to increased risks like non-communicable diseases, inorganic brain diseases and orthopedic consultations. It is important to note that most health insurance schemes worldwide provide family packages as well corporate packages for companies.

One of the main reasons an individual should have a health insurance scheme to their name is in case of an emergency. Road traffic accidents are a very common site in today's world and most are young adults between the ages of 15-49 years. Most insurance schemes provide access to free or minimal charge emergency services.
People often say it is cheaper to pay out of pocket for your health services. This might not be entirely false as young people have few comorbidities. In such circumstances it is recommended that young adults should the very least enroll themselves in a basic health insurance scheme that doesn't include specialized services. Children and the elderly being more vulnerable require an insurance scheme of a higher fee to cater to their needs.

Most countries have two broad insurance schemes – Government and Private. Governments usually provide cheaper schemes with relatively fewer services compared to private companies which charge more. It is possible to pay for a health insurance scheme but don't use it for the entire year. This doesn't mean that you will get a refund as the money pools for those who need it most. The aim of having an insurance scheme is mainly to give you an easy form of access to these services when a sudden need arises where people usually do not or cannot afford to pay a huge load of cash immediately. This is where you start to see the benefit of your health insurance.

In today's world where diseases are on the rise and there is increased awareness and better health seeking behavior it is important to have at least a basic scheme to your name. If you truly care about a loved one and want to appreciate them, enroll them for at least a basic health insurance. This will go a long way to reduce economic burdens on families, individuals and the entire country in general.

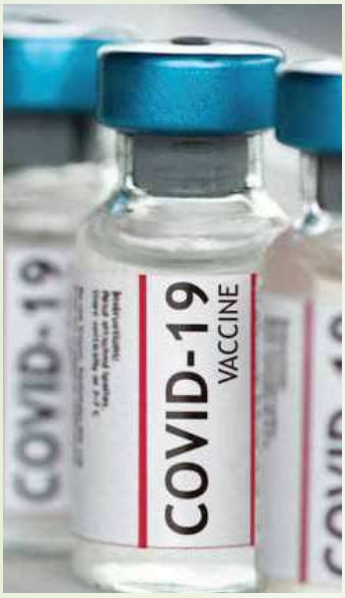
Imam Ali (A.S) has said, "There are two things whose worth are only known to the one who has lost them: "Youth and Health".

COVID - 19 VACCINATION - YES or NO?

**Dr. Sajjad Fazel - Public Health Researcher at the University of Calgary,
Studying and addressing COVID-19 misinformation and vaccine hesitancy.**

"The vaccines have been rushed!!" "The vaccines may have a chip in them!?!!" – These are just some of the many false and inaccurate claims that spread on social media today. These statements, which are shared widely online, are fabrications aimed to cause fear and panic.

So, what is the truth about the COVID-19 vaccines? What do we know? That is the purpose of this article.



Let's start with what are vaccines? Vaccines are products that help your body produce immunity and fight against diseases – think of it like the army general training your body's immune system (the troops) to attack an enemy (the virus). Our body's immune system doesn't always know what the best course of action is in fighting a disease. Hence, the vaccine trains the body to identify the virus and address the condition swiftly. Vaccines have been beneficial from the beginning of time and have helped reduce and eliminate diseases such as Polio, Diphtheria, and Measles.

Having understood the importance of vaccines, you may want to know whether the COVID-19 vaccines are safe? The answer is Yes! All the COVID-19 vaccines, including those produced in Russia and China, are safe and effective at preventing severe disease. However, just like anything else in this world, the COVID-19 vaccines do have some side effects. These side effects include; pain and swelling at the injection site, fatigue, chills, nausea, headache, and blood clots (specifically for the AstraZeneca vaccine). Keeping that in mind, you have to weigh out the benefit and risks of taking the vaccine. The advantage of taking the vaccine far outweighs the side effects. The side effects of the vaccines are short-lived and can be treated, but COVID-19 and its complications are challenging to treat.

Another question that may pop up in your mind is, "Why should we continue to wear masks and keep a social distance even after being vaccinated?" This is because we don't know whether the vaccines can prevent transmission. Recent data has shown that the Pfizer and AstraZeneca vaccines can prevent transmission of the COVID-19 virus to a certain extent, but the same cannot be said for the other vaccines. Hence, it is essential to wear masks, sanitize your hands, and maintain social distancing not to catch the virus in the first place.

Hopefully, by now, you're all excited to get your vaccine and are thinking about which vaccine should you get? The answer is simple: whichever vaccine you get first. The efficacy of the vaccines varies greatly – While the Sinovac vaccine has an efficacy of 51% and the Pfizer vaccine has an efficacy of 95% against symptomatic COVID-19 infection, all vaccines have approximately 100% efficacy in preventing severe disease and death due to COVID-19 infection. Therefore, it is crucial to get the first vaccine you can rather than shopping for a vaccine.

In addition, the vaccines require approval and are regulated products which means you cannot just procure one from the pharmacy. Finally, it is always better to have some form of protection against the COVID-19 virus than have no protection at all.

VIDEO GAMES *Vs* PHYSICAL HEALTH

Farzana Akhterhussein Hasham - Physiotherapist

Video games on consoles, computers and smartphones have revolutionized the world and the concept of virtual realities. It has become a significant part of our lives hence it needs serious attention.

Playing video games for a short time have shown positive effects on quality of life such as inclusion of social activity in online interactive games, improved eyesight by distinguishing subtle colors and small differences in pictures, multitasking and solving problems, enhanced memory, improved hand-eye coordination as well as lengthen attention spans. Nevertheless, long hours can lead to negative long-term effects. Studies show that excessive players may have signs of addiction suggesting that games are used to counteract underlying problems such as relationship problems, disability and as a coping mechanism for anxiety and depression. Playing violent games is seen to desensitize factors of violence in real life leading to an increase in violent crimes.

Video games have shown particular influence on physical health, youth today have been described as less athletic and less self-disciplined. The youth may spend more time playing video games than they do on their homework. Excessive sitting with minimal movement may possess risks of childhood obesity, chronic back pain, migraines, drowsiness and poor sleeping patterns which then has an effect on academic performance, shortened life spans, impedes activities of daily living and reduced quality of life.

Although video games have side effects, a rising potential may exist for active video play to promote health and physical fitness. Games offered by Wii sports, Playstation, Xbox Kinect and Nintendo switch which have hardware that detect player movement. Such video games have shown that children are more active while playing movement based games rather than sitting on the couch playing inactive video games. These games are known as active video games or 'exergames' which help in decreasing inactive behaviors by turning video gaming into active play time. It is reported that it is an attractive alternative to traditional forms of physical activity that might attract non-exercisers too.
'Exergaming' should not replace physical exercises but increasing the difficulty level of the game will increase the heart rates, so while Wii, Nintendo or Xbox are not the perfect solution to get your physical activity such as getting 60 minutes of physical work out time, it motivates to benefit from the unique qualities of these games such as role playing as professional sports players.

While the debate continues on the use of such video games as being 'good' or 'bad', the conclusion as to the relationship of video games and physical health lies with the balance of physical work out time as well as playing games. Gamers themselves are becoming more mindful of separating the gaming world from the real world and becoming more aware of the effects of the games. This is a promising start to help change behaviors and reasons behind the use of video games.

Advancements in PHYSIOTHERAPY

Zamina Gulamabbas Ladha (BSc PT)

Physiotherapy is known to be a very "hands-on skin contact" profession. This evolved during the pandemic into becoming an instruction based, self-care, minimal contact profession.

Explorations of newer physical therapy methods have been adapted, such as e-consultations, video-based physical assessment tests, e- learning, and follow-up of exercise prescriptions. These were a few measures to continue running physiotherapy clinics and assisting the vulnerable crowd in getting the necessary help during the peak of the pandemic; despite the trouble of accessing the traditional "in person" physiotherapy care.

This resulted in self dependent and more straightforward methods and opened up a whole new world of techniques that can be self-taught or require minimal assistance that in the past have led to dependence on pain relief modalities such as TENS machines and Ultrasound therapy.

Virtual rehabilitation facilities that allow "physiotherapy anywhere" are being explored; such as the smartphone applications which allow outreach and cost friendly methods. These cover a wide arena of care, remote monitoring, consultation, education and networking for people such as those with physical impairments and poor access to transportation; giving them the advantage of reduced travelling costs and time spent trying to get to physiotherapy clinics.

Added compliance to exercise regimes may also be seen as an advantage due to technology and follow-up through applications, e-reminders and online follow-ups, which may be of value in adherence to programs tailored for rehabilitation. By providing videos, pictures and easier therapist availability, it is believed that this may allow easier access to physical therapy sessions on a large scale for cases in the future.

Virtual physiotherapy, despite its beneficial roles may have the following challenges to it:
- Lack of access to smartphones in major parts of the country
- Hindered therapist understanding of exercise barriers
- Poor compliance due to lack of therapist in person
- Intolerable pain / wrong pain level perceiving
- Passive/assisted movement treatments

Chest physiotherapy and breathing techniques are proven to be vital during the peak of every secretion filled lung as well as in post COVID healing and minor breathing difficulty to assist restoration of healthy lungs and breathing. Programs designed to restore breathing, muscle strength retraining and good cardiac health have been well emphasized in the medical world and appreciated for their wonders. These have roles in physiotherapy; however, research is still in process to understand the depth of the role of chest physiotherapy techniques in COVID- 19 rehabilitation.


THE KIDS CORNER

Innovations in the World of Plastic and Reconstructive Surgery

Dr. Allyzain Esmail

As a general surgery resident with an inkling towards reconstructive surgery, a major myth needed to be abolished about plastic surgery. It is that we are more than just the nose or breast job team. The two major arms in plastic surgery are cosmetic surgery and reconstructive surgery. The latter of which has the objective is to improvise with what is available so as to rectify a defect. This is to achieve the form and maintain the function prior to illness. Hence, major areas in need of our intervention are burns, trauma, oncological excisions and congenital defects.

Burn injuries are among the most devastating of injuries and a major global public health crisis. The majority of cases occur in low to middle income countries. Loss of large areas of skin leaves an individual vulnerable to many complications. Despite man finding water on the moon an alternative to skin has not been found. Innovations from Brazil involved the experimental use of Nile Tilapia fish skin to cover exposed areas. This formed a barrier while giving the opportunity for the body to heal and regenerate its own new layer of skin. This is the closest we have come to becoming the mythological, half human half fish, Aquaman. Added attempts have used frog skin and pig skin however no superhero has been called 'Pigman' hence we shall stick to the fish.

Fig 1 – Nile Tilapia Fish Skin graft

In 2020, there were 2.3 million women newly diagnosed with breast cancer worldwide. With mastectomies (complete breast removal) being the mainstay of treatment, reconstruction is of paramount importance. Current innovations aim towards either implants or the use a woman's own tissue.

The use of a foreign body implant has its own complications. Hence, we can either remove a portion of her back muscles or her abdominal muscles to reconstruct a breast. For an added touch, we tattoo a nipple on the back skin then that tissue is taken and attached to the reconstructed breast.

Fig 2 – TRAM flap breast reconstruction

vCongenital anomalies such as cleft lip require reconstruction with recent innovation on trials of robotic controlled surgery. The added precision provides well-defined dissection with reducing damage to blood and nerve supply hence superior functional recovery. The Da Vinci Surgical System facilitates this by a surgeon controlling the robot from a seated station away from the patient. Theoretically, one could control the robot while sipping a cup of chai at his station; a Khoja surgeon's dream come true. However, also having khara biscuits and chewro would be pushing it.

You can't mention innovation without touching stem cells as it is mentioned everywhere. This is especially true in the WhatsApp forwards your parents send you. Theoretically, stem cells in the field of plastics has been postulated to be able to regenerate skin, fat and muscular tissue in the lab so as to be used as a substitute to fill the defect. However, its clinical application is limited as much is unknown about the safety and efficacy of stem cell therapies with current trials experimental. Stem cells have the potential to be anything; controlling it to become what you want is the struggle. Therefore, the field of plastic surgery is ever growing with its application embedded in other surgical sub-specialties and who knows, maybe one day we will grow our own skin.

Fig 3 – Da Vinci Surgical System

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INNOVATIONS IN DIABETES MELLITUS

Dr. Sabira Hussein Manji

The first case of diabetes traces back to the year 1552 B.C., which manifested as frequent urination and emaciation together with noting ants around the urine of the patient. Since then, there has been vast research and improvement in the diagnostics and management of diabetes mellitus ranging from larger insulin needles to insulin pens and portable glucometers as well as insulin pumps and artificial pancreas.

Here's a brief overview of the latest innovations in diabetes.

1.Eliminating the finger stick pricks: continuous monitoring of glucose levels has been made possible by applying a sensor patch on the upper arm. This enables 24 hours glucose monitoring and allows patients to identify what causes spikes and drops in their glucose levels throughout the day. The patch can be worn even in the showers.

2.An application called **DIAGURU** is available in the android play store, which is focused on lifestyle modification and medication management. Consistent use of the application revealed a reduction in the glycated hemoglobin (HBA1c)

3.Use of nanotechnology in the oral delivery of insulin: Nanotechnology use is still undergoing research. The main aim of using nanotechnology is to encapsulate the insulin in a nano-carrier system which prevents it from being digested partially by the acidity of the gastric contents. It also aims for a gradual, controlled release of the drug to ensure maximum benefits from the medication. This will then lead to successful oral administration of insulin and reduce the painful and invasive insulin subcutaneous injections. The role of inhalable insulin is made possible by using a dry powdered formulation of insulin encapsulated in nano-particles. This provides direct administration of non-degraded insulin into the bloodstream.

4.Artificial pancreas: this is a combination of three progressive technologies used to engage automation to obtain good glycaemic control. These involve A) A sensor like 'continuous glucose monitoring' that measures blood glucose at all times and sends data to a computer algorithm. B) Control algorithm to analyse the data and calculate the required insulin dose. C) An insulin infusion pump used to deliver the insulin as per the computer instructions.

5.Role of vaccination: Studies show potential polyvalent therapeutic vaccines for type 2 diabetes that enhance metabolic activities through the immune system. There is also the role of using monoclonal antibodies for delaying type 1 diabetes via a drug called 'Teplizumab' which has been shown to improve Beta-cell (cells that make insulin) function among high-risk relatives.

All these innovations aim for less invasive techniques with greater efficiency. Kindly refer to your physician if you need more information on the above or need to change your medications.

The Looming Bigger Threat

By: Farhan Yusuf

Imagine a world where a routine dental procedure like a tooth extraction can become life threatening. Imagine a world where a minor wound on your leg can easily lead to your leg being amputated. Readers of this article, that is a reality we might face very soon if we do not change some prominent behaviors we currently have. That will be the reality that will be brought about by antimicrobial resistance (AMR).

According to the World Health Organization (WHO), AMR occurs when bacteria, viruses, fungi, and parasites change over time and no longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death. As a result, the medicines become ineffective and infections persist in the body, increasing the risk of spread to others. It has been featuring on the list of top threats to global health for quite a few years and continues to be a growing problem.

So how am I as a community member playing a role in this problem? Well, the increase of AMR is a result of our irrational use of medicines especially when it comes to antibiotics.

As a Pharmacist, I have seen numerous behaviors within the community that facilitate this risk including taking antibiotics without any prescriptions, recommending antibiotics to each other the way we recommend multivitamins, not completing our recommended and prescribed doses and stopping the usage of the medications once symptoms have been alleviated, later using the same remaining doses of antibiotics to treat infections, and basically just considering ourselves experts of medicines based on experience and information that we get from “Dr. Google”.

This article is also meant to create some alarm for our health professionals as well because I think they are equally playing a part (if not bigger) when it comes to these behavioral patterns. I can very easily ask the community members to always go to either a Doctor or a Pharmacist before using medications but what about the role that these health professionals play? Are we as health professionals giving the right guidance? Are we providing the necessary support? Questions to ask ourselves.

The COVID19 pandemic created a lot of panic mostly owing to the spread, suffering and death caused by it. While data is a challenge, we know that over the last year and a half COVID19 has taken numerous lives amounting 3 – 4 million. However, a report in 2016 estimated that, by 2050, 10 million people will die every year due to AMR unless a global response to the problem of AMR is mounted.

Take a moment to digest those numbers and think about the level of responsibility this puts on each and every one of us.

While national and international organizations are working towards alleviation of AMR as a challenge, it really comes down to us as individuals if we really want to tackle this. The health professionals and the community members must work together so we can prevent this loss of life.

Think twice before you take that medicine!

Instructions

SNAKES & LADDERS

FINISH

START

REQUIRED:

SNAKES & LADDERS

Instructions:

1. 2 - 4 players
2. Each player can only begin the game with a 6 on the dice
3. If your piece lands on the start of a ladder, you must move to the top of the ladder, and if your piece lands on the start of a snake, you must slide down to the bottom of the snake.
4. If your piece lands on a blank space, you are safe
5. If your piece lands on any icon eg. A human heart, return to this page to follow further instructions

ENJOY

You just misdiagnosed a patient, move back 7 steps

You got a stroke. Move back 10 steps

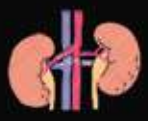
Good recovery after your appendicitis surgery. Move 7 steps forward

Unsuccessful CPR. Move back 24 steps

Vaccinated against COVID 19. move 5 steps forward

You had a healthy meal today, move 8 steps forward

Brain CT scan complete. No tumours detected. Move 10 steps forward



Kidney stones detected on renal ultrasound. Move back 9 steps

Your liver needs a transplant. Move back 14 steps

Congratulations! No positive findings on physical exam. You are good to go! Move 1 step forward

Tele-Dermatology: A Benign Solution or a Malignant Mayhem?

Dr.Lujaina. H

The world of medicine and its modus operandi continue to evolve every day introducing new methods and modifying the old to provide optimum patient care whilst navigating through provider- patient challenges. The COVID-19 pandemic demanded adjustments from all medical professionals including dermatologists. Dermatology is a science that studies the skin, hair and nails. To find their way around, dermatologists reinvented a method that was initially practiced in the 19th century and applied to modern dermatology practice. Tele-dermatology gained popularity especially in the USA and Euro-Asia. However, East Africa continues to hold fast to the orthodox method of seeing patients in a clinic, limiting visits to only those that require close attention while allowing others to follow up to only refill medication.

Tele-dermatology can be carried out in three (3) ways:

1.Store and forward (SAF): This is the most popular method, in which a primary doctor consults a dermatologist by sharing photos of the patient's skin lesions with a brief history and examination findings to correlate with.

This may also be done directly between a patient and a dermatologist.

The Pros include being cost effective, unaffected by time zones, accessible to rural areas, not dependent on internet or network speeds and does not interfere with daily work flow. The cons on the other hand is that it requires high resolution images and may require repeat consultation if clinical history is insufficient.

2.Real time Tele-dermatology: This involves a direct face to face video conferencing between a patient and a dermatologist. The advantages include the ease to build rapport with patients, it's convenience, enables easier verification of medical history and allows immediate medical advice and moreover saves time by reducing the probability of a repeat consultation. The disadvantages though are that it may be expensive, requires a good and reliable internet connection and a tech savvy patient and tends to limit practice across different time zones.

3.A hybrid of SAF and Real- time Tele-dermatology: where this method combines the advantages of the above two methods.

There are four (4) main practice models of teledermatology:

1.Consultative: tele dermatologists provide medical guidance to the Primary care physician with regard to their skin condition, whilst the patient remains under their care.

2.Triage: involves sieving and prioritizing patients that may require admission.

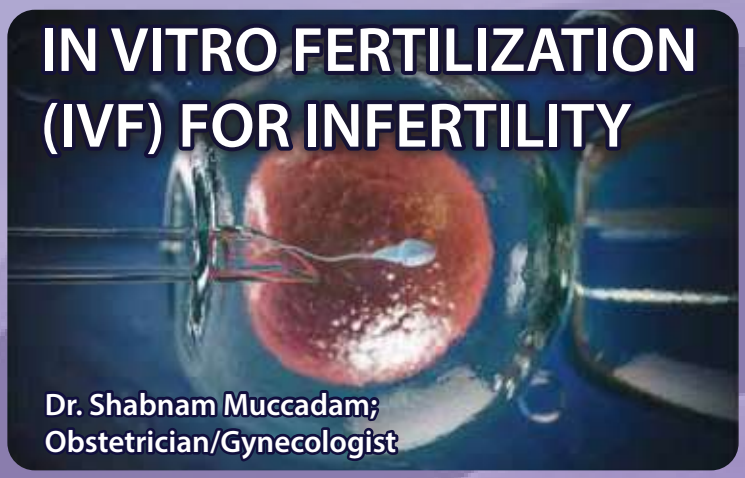
3.Direct care: Patients are able to directly consult a tele dermatologist by sending them high resolution photos.

4.Follow up: allows close supervision of patients with chronic skin conditions.

Tele-dermatology has surfaced many benefits for those that seek the attention of a dermatologist especially as the ratio of patients to dermatologist remains uneven; however, it also poses many clinical, ethical, legal, economic and technological challenges.

Whilst other nations have adopted, the big question remains; is teledermatology the future of dermatology practice in Africa?

IN VITRO FERTILIZATION (IVF) FOR INFERTILITY



Dr. Shabnam Muccadam;
Obstetrician/Gynecologist

IVF, a treatment for infertility, is a complex series of procedures intended to aid a couple or mother in the conception of a child.

How is it done?

1. Ovulation is induced with medications resulting in the production of numerous eggs from the to-be-mother. A needle is then used to harvest mature eggs from the ovaries.
2. Fertilization of eggs with the injection of sperm from the to-be-father.
3. One or more embryos are implanted in the uterus of the to-be-mother through the vaginal canal a few days after fertilization. Healthy embryos that are not transferred may be frozen and stored.

IVF may be an option to couples in cases of:

- Fallopian tube damage or blockage.
- Infrequent or absent ovulation, fewer eggs are available for fertilization.
- Endometriosis- when the uterine tissue implants and grows outside of the uterus.
- Tubal sterilization.
- Impaired sperm production or function.
- Unexplained infertility.
- Genetic disorder. Pre-implantation genetic testing is done if there is a risk of passing on a genetic condition to your child.
- Fertility preservation during cancer treatment. Women's eggs can be retrieved and preserved for later use. Alternatively, the eggs can be fertilized and saved as embryos for future use.
- Women who don't have a functional uterus or for whom pregnancy poses a serious health risk, may use another person to carry the pregnancy (gestational carrier).

Myth Busters:

Myth: IVF is only for infertile couples.
Fact: IVF is used to assist a woman who is unable to conceive naturally, you do not need to be infertile.

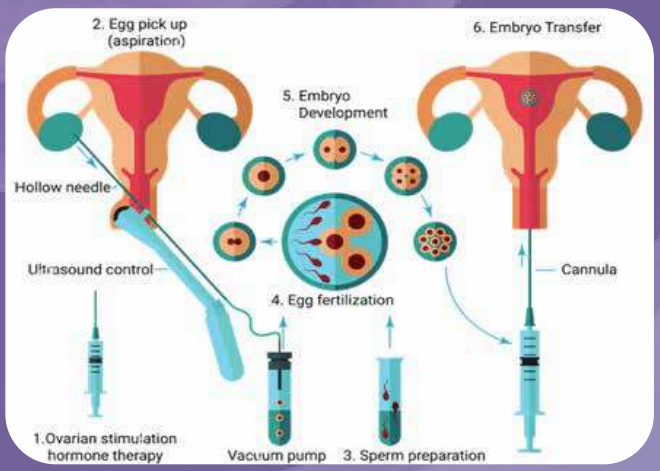
IVF can be considered in cases of genetic diseases that could affect the baby's health. It is also recommended after doing a thorough fertility evaluation to rule out potential causes.

Myth: You can do IVF at any age
Fact: The reproductive system of a woman ages with her. Even with IVF, she may not be able to produce enough eggs to create a healthy embryo. Other factors also control how likely you are to succeed, some challenges make it more likely for couples to have multiple cycles of IVF.
Myth: IVF causes you to have multiple births
Fact: To maximize your odds of a live baby, IVF labs transfer a number of viable embryos, but this may increase your risk of miscarriage or premature birth.

Myth: Fertility drugs cause cancer
Fact: You can rest assured that the drugs you must take to trigger ovulation and release multiple eggs, are safe.

Shia Islamic Sharia "quoted":
If the sperm and egg belong to the husband and wife and the inseminated egg is either implanted in the wife's or another woman's womb, there is no problem. However, since implanting involves touching and seeing of the private parts: insemination would be allowed only when the parties to the marriage may face difficulty in their life which is not normally bearable. If this is the case, looking and touching would be allowed to the necessary extent.

As for mahramiyah in situations involving a gestational carrier, the owner of sperm is the legal father and the owner of the egg is mahram (related) to the child because she is his/her father's wife and the owner of the womb is mahram to the child because she is like his/her mother.

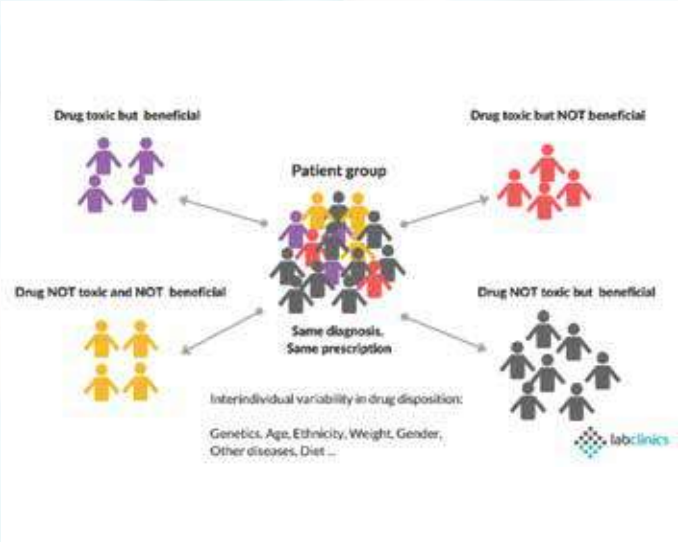


Pharmacogenomics and Precision Medicine
A Bright Future

Ummuabiha Karim

Ever wondered why certain medicines don't work on certain people? Why can you never find the perfect medicine for your asthma? Ever wondered why some people respond negatively to a certain medicine? The answers to those questions lie mostly in pharmacogenomics.
Each cell in our body consists of a genetic material called DNA, these substances are made up of 4 different molecules
(A, G, C and T) like 4 different colored Legos.

Individually, the colored Legos cannot make much, BUT when you build them up in a certain order, you can make Lego people, or a Lego house, or a Lego tree. It works the same way in your body. These Legos are known as nucleotides, and they are the building block for our genes. The genes make different proteins that make you the unique person you are. The study of all these amazing structures is what genetics really is all about.



Pharmacogenomics is a field that combines the science of drugs (pharmacology) and the study of genes and their functions. 99.9% of the Lego arrangements in humans – our nucleotides, are the same.

However, 0.1% of our arrangements are different for every individual, and that is what makes us who we are. This 0.1% difference is what makes each person respond to each drug in a different way.

The way a drug will work in our body depends on many factors like age, health and environment, however your genetics accounts for 20 - 95% of how the drug will work. Pharmacogenomics deals with studying how this difference in our genes will lead to a difference in the way each of us respond to a drug.

The concept of the current medicines is "one size fits all", however, the field of Pharmacogenomics challenges this idea by taking into account each and every person's genetic makeup (Lego arrangement) – this brings us to something known as Precision medicine.

What is precision medicine?
Currently, the best option medical practitioners have is to use is trial and error – like trying different keys on one lock (the keys being the medications, and the lock being the person), until you get it right. But personalized medicine helps doctors to know exactly what arrangement the lock is, and in turn pick the perfect key.

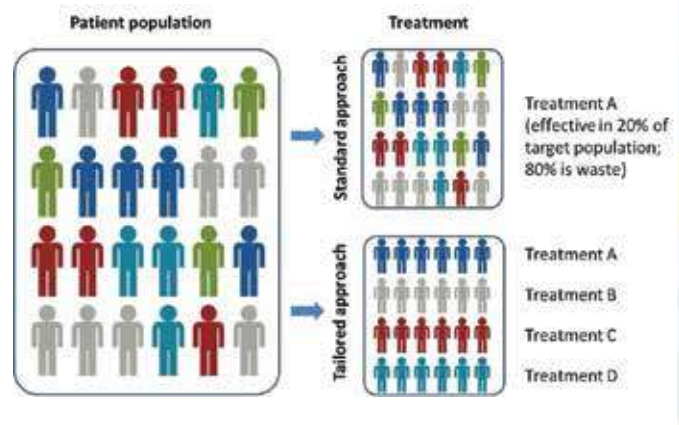
Imagine having a special list of drugs that are meant specifically for your needs. Imagine a system that could tell you exactly what you need to treat a specific disease, and exactly how much. That is precisely what personalized medicine aims to do.

A geneticist will sequence the genome of thousands of people – in simple terms this means, they will use technologies that will show them the arrangement of the 4 different colored Legos in each person, they will compare sequences from different people, and using this they will get valuable information about what drug your body can take and what drug your body can not.

Drug manufacturers can then take over to develop medicines that will help people who do not respond to the normal medicines. This is one way that it is implemented.

Why do we need this?

Even though current drugs work well on most people, there is a minority on whom these drugs don't work, and on some people, even cause more harm. In the US alone, 50% of the drugs prescribed DON'T show the expected result. In addition to that, 7% of the patients are admitted just because of drug reactions. Not only will thousands of patients be saved, but hospitals will cut down on costs.



Is it already being used? Yes,

Pharmacogenomics is already implemented.

A good example is in the treatment of HIV using a drug called Abacavir. Even though this drug is effective, 5% of the people still get a reaction using this drug and the drug has to be changed by the medical practitioners. These 5% have a different Lego arrangement, such that they have a higher risk of reaction.

Pharmacogenetic screening helps to know the Lego arrangement, and if the person can take the drug or not.

Several cancers like colorectal cancer, and leukemia have improved treatments after realizing through pharmacogenetic screening, that the same amount of chemotherapy isn't effective in all patients.

What is the future?

This important field still has a very long way to go and is currently quite limited because of many different challenges. It is very promising, and it will revolutionize medicine and diagnostics.

ARTIFICIAL INTELLIGENCE - REPLACING DOCTORS?

BY DR. MARYAM MOHAMEDALI, HEALTH LEAD AT INSPIRED IDEAS - WWW.INSPIREDIDEAS.IO

MEDICINE - A FIELD SO BEAUTIFUL AND SO CENTRED AROUND HUMANITY THAT IT AUTOMATICALLY EVOLVES WITH ALMOST ANY OTHER FIELD ON THIS PLANET. WHEN WE STUMBLED ACROSS STEAM ENGINES, WE WERE ABLE TO PRODUCE MICROSCOPES, SCALPELS, AND TEST TUBES. THE FIRST LIGHT BULB SWITCHED ON THE LIGHT ON INFECTIOUS RESEARCH WHILE PETROLEUM AND DIESEL POWERED OUR TRANSPORT INDUSTRY AND CONSEQUENTLY THE PUBLIC HEALTH SYSTEMS. THEN CAME THE PROGRESSION THAT WE ARE MOST FAMILIAR WITH - AUTOMATION AND ELECTRONICS! THIS USHERED IN THE INVENTION OF VACCINES, PACEMAKERS, CONTRACEPTIVES, GENETICS AND ALL THE RECENT ADVANCEMENTS! AND NOW - WE'RE ENTERING THE AGE OF ARTIFICIAL INTELLIGENCE (AI).

DID THAT MAKE YOU THINK OF ROBOTS TAKING OVER THE WORLD? A LOT OF PEOPLE MAY THINK SO, BUT NO. THAT ISN'T REALLY WHAT AI IS. IT'S CALLED AI BECAUSE IT ONLY TRIES TO "MIMIC" HOW HUMANS "THINK" AND REACH OUR OWN CONCLUSIONS. HOWEVER, IT'S MUCH SIMPLER THAN OUR OWN BRAINS.

WHEN YOU TELL YOUR DOCTOR THAT YOU HAVE A FEVER - YOUR DOCTOR WILL FIRST THINK OF WHAT COULD BE POSSIBLY WRONG. "HMMM...MALARIA? A UTI? PNEUMONIA?" THE QUESTIONS THAT HE ASKS YOU NEXT ARE BASED ON HIS YEARS OF EXPERIENCE. HE KNOWS THAT MALARIA IS STILL PREVALENT IN TANZANIA, SO HE MIGHT NEXT ASK YOU, DO YOU HAVE A HEADACHE? HOWEVER, ANOTHER DOCTOR MIGHT THINK THAT YOU HAVE SOME INFECTION AND WOULD HAVE NEXT ASKED YOU IF YOU HAVE ANY VOMITING OR A COUGH. AFTER YOU ANSWER YOUR DOCTOR'S QUESTIONS, HE WILL THEN MAKE A PROVISIONAL

DIAGNOSIS AND SEND YOU FOR SOME TESTS TO CONFIRM THIS, AND RULE OUT ANYTHING ELSE. ARTIFICIAL INTELLIGENCE IN MEDICINE (AIM), IS CURRENTLY BEING RESEARCHED ON AND USED TO MAKE EXPERIENCES LIKE THIS MUCH MORE EFFICIENT, SIMPLER, AND FASTER. WE WRITE A PROGRAM THAT THEN "LEARNS" THROUGH EXPERIENCES OF A LOT OF CASES THAT HAVE ALREADY BEEN DIAGNOSED AND TREATED BY DOCTORS. THIS CAN TAKE A LONG TIME AND CAN BE DIFFICULT. BUT ONCE THIS IS DONE AND VETTED BY MULTIPLE SPECIALIST DOCTORS, THE AI PROGRAM CAN THEN "PREDICT" DIAGNOSES BASED ON THE "INFORMATION" YOU GIVE IT.

IT'S ALSO USED IN A LOT OF OTHER PARTS OF MEDICINE, BUT A FAVORITE SEEMS TO BE RADIOLOGY. THERE ARE CURRENTLY MULTIPLE AIM PROJECTS IN TANZANIA ITSELF TRYING TO USE AI IN PEDIATRIC DIAGNOSTICS, DIAGNOSING TB, PREDICTING WHETHER HIV PATIENTS USING ARTS WILL STOP USING THEIR MEDICATION SOON, DIAGNOSING CERVICAL CANCER, AND PHARMACEUTICAL SUPPLY CHAINS AND SO ON!

DOES THIS MEAN WE WON'T NEED DOCTORS? OF COURSE WE WILL! WE MIGHT HAVE ALREADY FORGOTTEN, BUT THE WORK OF A DOCTOR HAS EVOLVED AND EXPANDED AS CENTURIES ROLLED ON. IMAGINE IF WE WERE ABLE TO LET FRONT-LINERS SUCH AS NURSES AND COMMUNITY HEALTH CARE WORKERS USE THIS TECHNOLOGY (AFTER SOME GOOD TRAINING OF COURSE)! THAT MEANS DOCTORS COULD CONCENTRATE ON INCREDIBLY COMPLEX CASES, SUPER SPECIALIZING, FURTHERING RESEARCH AND INNOVATION, AND SO MANY OTHER POSSIBILITIES. I HONESTLY BELIEVE THAT THIS WOULD MAKE THE ECOSYSTEM OF MEDICINE EVEN GRANDER THAN IT IS TODAY.

TELEMEDICINE

By Dr. Ali Khatau

The 4th industrial revolution which started at the turn of the century has opened up massive opportunities for young entrepreneurs to develop tech products in different spaces. Countries all over the world are experiencing a period of rapid transition in every aspect of society from healthcare and education to shopping and banking.

The efficiency, convenience, reliability & affordability of these tech solutions make them much more attractive and easier to implement for governments and private individuals. Online Edtech websites and mobile applications are fast replacing traditional pen and paper methods used in schools. Online shopping via mobile applications is also quickly replacing traditional ways like visiting supermarkets and grocery shops. This is by offering lower prices, rapid services and the comfort of getting groceries delivered to your doorstep.

Use of telemedicine applications which allow patients to remotely consult doctors through a mobile application are also becoming popular throughout the world. The mobile applications allow patients to consult general doctors as well as a wide range of specialists including nephrologists, pediatricians, general surgeons and others. This is mostly via text messaging, voice calls and video calls depending on the preferences of the doctor and the patients. Based on the discussions, doctors can also advise patients on the lab investigations to do at their nearest facility and can also prescribe medications through the application. Payments are usually made by mobile money or bank cards.

Doctors using telemedicine in their practices are hopeful and see the benefits. I spoke to a dermatologist based in Mwanza city who regularly uses telemedicine in her practice. She spoke very highly of the new technology and how it has helped her patients consult her from any location and at any time. She explained how she could use pictures and videos to diagnose common skin conditions and prescribe medications or advise on how to treat the condition. Patients wouldn't have to queue up in long lines for hours outside the doctor's office. The risk of contracting infectious diseases like the coronavirus is also reduced.

One of the cons she mentioned was that some patients have a doubt on telemedicine and feel they will not be properly treated unless they are seen by the doctor in person. Another doctor I spoke to mentioned how telemedicine limits the doctor from performing the physical examination which is an essential part of reaching a diagnosis. A positive aspect he noted was how it could help in cases where patients were far away in rural areas and bed-ridden patients who could not visit a health facility.

Adoption of telemedicine is rapidly increasing across the world. The American Hospital Association (AHA) reports that 76% of United States hospitals connect with patients and practitioners using some form of telemedicine. While still a very new concept in Tanzania there are various barriers. These include but not limited to a lack of willingness among patients to explore new technologies and slow internet speeds. Telemedicine is a very promising field that has the potential of revolutionizing the way patients access health services.

Keeping Up With Technological Advancements to Stay in the Game

Mishal Raza
Senior, B.Sc. Mechanical and Energy Engineering University of North Texas

The growth of technology and constant evolution of inventions is no mystery. As these advances bloom, they can be perceived as a threat to human employment and need. However, this is not necessarily the case. Any machine be it a microwave or a robot, is made to ease human life. This is true from a medical perspective as well; research is leading to the discovery and use of many advanced techniques that makes the job of medical professionals more efficient. “Every physician now uses advanced technology during the course of their daily work, but only a handful have the technical vocabulary or training required to help develop it”. It is important that medical professionals build on their knowledge of technology and familiarize themselves with that which is undeniably a big part of the medical world.

Engineering and medicine have come together to create a platform like no other.
One recent and booming field is that of robotic surgery. This technique involves the use of a camera attached to a mechanical arm with installed surgical instruments. A surgeon controls the arm to perform clear and precise incisions. It is a low invasion process that can be used to perform delicate and complex procedures.

Another fascinating advancement is the use of Virtual Reality (VR). This is excellent for training professionals in conducting medical procedures by creating life-like scenarios. It is also used to help heal those with mental trauma and shock.

Nanomedicine is, yet another, innovation that functions using particles on an atomic level. Particles are so small that 5000 of these can be fit on to one hair strand! These particles are being used to improve treatments to diseases like cancer and diabetes. This is currently being done by using drugs which, when consumed, cause nanoparticles to carry chemicals to affected parts of the body and slowly lead to healing.

A final one, of many others, is quantum computing. This is, basically, the use of computer systems that are a lot faster than regular ones. They use the interesting theory of quantum mechanics to create clearer and more accurate medical images. It is also seen to have potential to save years of research and investment in finding faster cure for diseases.
The techniques mentioned above are just a few gems in a sea of informative research conducted in engineering and medicine.

The beautiful alliance of engineering and medicine is accelerating healthcare innovation and will undoubtedly enhance our health care system. Nothing can ever replace the human touch however, it is important that we merge traditional ways with upcoming innovations not only to stay in the game, but also to serve society in the best way fathomable.

WORD SEARCH

G	N	D	R	A	M	U	N	E	D	O	U	D	A
L	N	C	H	P	O	S	A	T	H	P	B	U	S
D	H	O	P	P	U	A	E	H	O	U	R	M	G
K	T	A	O	E	S	T	H	Y	U	R	A	U	S
I	A	M	O	N	H	R	C	R	C	I	I	O	P
D	H	I	R	D	N	O	A	O	A	O	N	T	L
N	S	M	C	I	M	A	R	I	R	A	L	T	E
E	L	A	N	X	P	C	T	D	O	I	O	O	E
Y	I	O	Y	C	E	H	I	T	C	T	N	D	N
U	L	S	T	O	M	A	C	H	L	D	C	R	O
O	E	S	O	P	H	A	G	U	S	I	H	A	G
U	U	P	P	D	E	S	U	M	Y	H	T	I	U
P	M	S	E	A	D	A	P	R	S	G	N	U	L
D	I	A	P	H	R	A	G	M	I	I	E	A	P

DIAPHRAGM
DUODENUM
LUNGS
TRACHEA
STOMACH
ILEUM
AORTA
APPENDIX
BRAIN
KIDNEY
COLON
THYROID
THYMUS
SPLEEN
OESOPHAGUS

INTERVENTIONAL RADIOLOGY

Assad H Amirali & Mudassir H Amirali

Minimal invasive treatments are found to have started a decade ago and have progressed significantly in the past few years and still hold a vast future of growth. Interventional radiology being part of the huge tree of modern invasive treatments is found to play a vital role in healthcare for treating patients, whether elective or as an emergency. It is difficult not to find Interventional Radiology (IR) in any developed country hospital. With the high demand, there is a vast need of 45% of interventional radiologists required to accommodate this change and demand according to a survey in the UK.

The pathway to Interventional radiology is not too different from Diagnostic radiology. The pathway requires one to attain a medical degree (MBBS), with which one can then apply for a Masters degree in radiology for 3 years, after which they can super specialize in Interventional radiology. One can further sub-specialize in IR into non-vascular IR, Vascular IR, a combination of both, Interventional Neuroradiology, Pediatric IR or IR oncology. The pathways may differ based on different universities.

This modern technology of IR has assisted in treating many patients who may have blood clots in the deep veins (DVT), Peripheral Artery Disease, Congenital vascular problems, Portal Hypertension, Urinary system blockage (obstructive nephropathy), Ultrasound-guided biopsies (Prostate, Breast, Liver), etc. Most of the procedures are usually done under Ultrasound, Computed Tomography (CT), and Fluoroscopy Units. The majority of the IR procedures are under local anesthesia. Before proceeding with any IR procedure baseline blood tests are done and an antibiotic is used for patients prophylactically. Within the IR department Vitals (oxygen, blood pressure, and heart rate) are measured and emergency medications kept close in the event there is a complication that occurs.

After the patient is discharged from the IR room, they are kept in a recovery room for 2-4 hours with vital monitoring every 15-20 mins by experienced staff. Complications like internal bleeding, post-procedure infection and others are reported to the primary doctor and radiologist. International guidelines are followed to reduce risks.

Treating a disease is mostly therapeutic which involves mostly the physical and metaphysical aspects, but according to the Islamic law based on spiritual, psychological, and material aspects, it is wajib to get necessary medical treatment in a right manner and one will be accountable for it later.

In summary, with imaging being an important guiding tool in this day and era, IR shall be the future of medicine due to its minimally invasive nature based on radiologist discipline and availability of equipment. One should pursue it as a career or for treatment purposes if needed as IR improves efficiency and efficacy of procedure and patient outcomes.

Ali F. Jaffer - Clinical Audiologist

3D PRINTING in Ear and Hearing Care

The development of 3D printing has revolutionised many industries through its many applications in precision manufacturing. 3D printing is also known as additive manufacturing, where solid objects are made from a digital file. These processes are particularly useful in audiology, where precision is very important in ensuring that the quality of products is up to a certain standard. How exactly do we use this though?

For quite a few years now, even before 3D printing became mainstream, it has been used to make custom ear moulds and hearing aids. However, since everyone's ears are unique, there can't be a 'one-size-fits-all' hearing solution that will work effectively for everyone. So instead, an impression of a person's ear is taken, scanned by a 3D scanner, and then shaped to fit perfectly in that specific person's ear. Once this is done, the mould or hearing aid shell is printed, after which manufacturing and fitting of other electronic parts are done by hand. This has dramatically improved comfort for patients wearing hearing aids and has made the fittings very precise. It has also reduced the time it takes to produce hearing aids and ear moulds, as while they would take days or weeks previously, they now take less than a day to manufacture.

Another great application of 3D printing in ear care was the focus of a mainstream news story that broke last year about 3D printing in the transplant of middle ear bones in South Africa. This was the first transplant of these bones, or ossicles, aimed to restore the hearing of a man with conductive hearing loss. Traditionally, these bones were reconstructed from steel or ceramic and had a high failure rate – the use of 3D printing allows for one to custom design a prosthetic bone with a more exact fit and print it precisely as required. Dr. Tshifularo, the surgeon pioneering the procedure, explained that with 3D printing, his team was able to take a scan and "get the same size bone, position, shape, weight, and length and put it exactly where it needs to be – almost like a hip replacement."

Day to day, the medical industry is evolving with technological advances that improve patient care, device quality, and overall outcomes. Audiology and otology are only two of all the areas where 3D printing is constantly leading to breakthroughs, and we're all excited to see where technology leads us next!

INSIDE FOUR *WALLS*

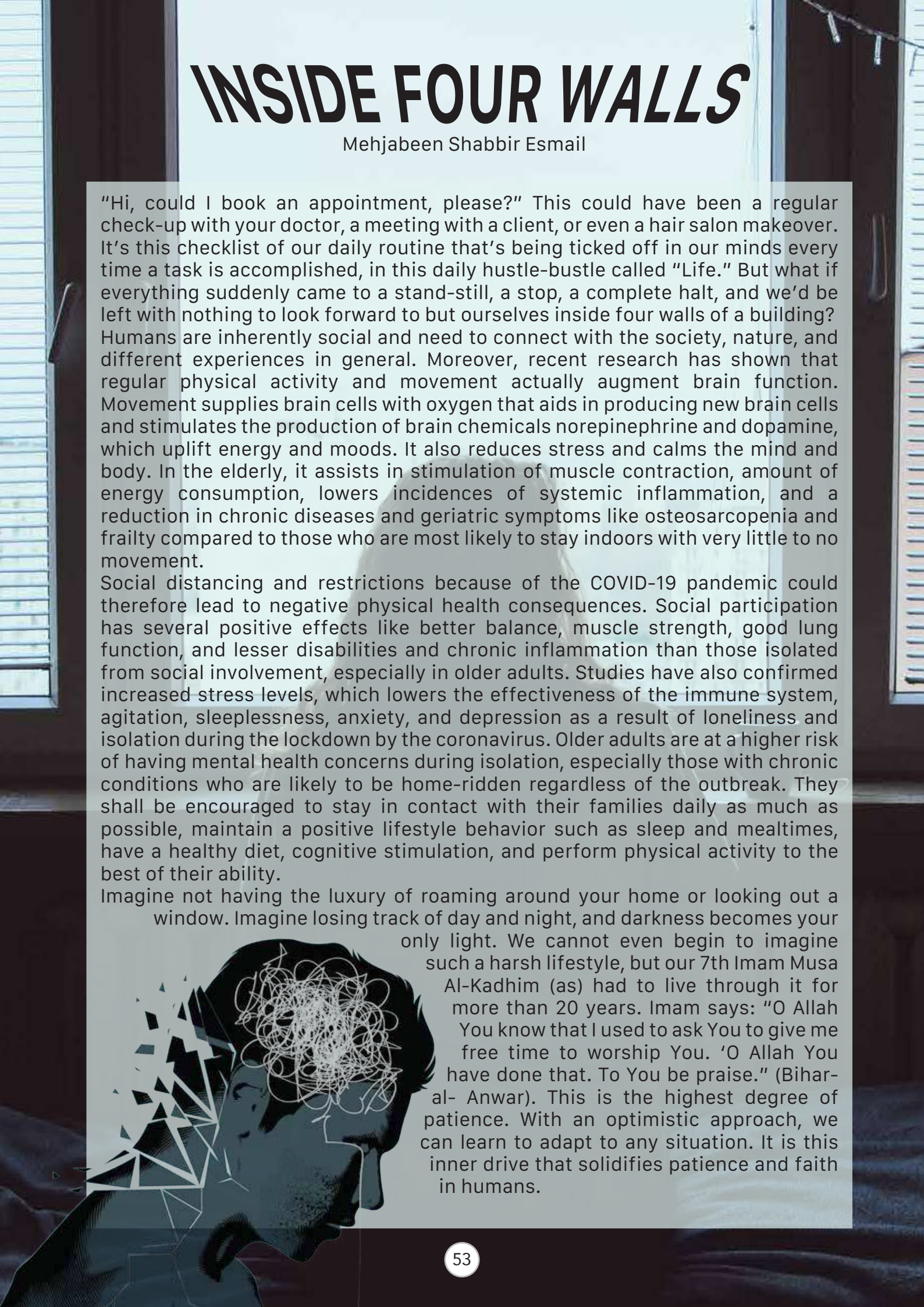
Mehjabeen Shabbir Esmail

"Hi, could I book an appointment, please?" This could have been a regular check-up with your doctor, a meeting with a client, or even a hair salon makeover. It's this checklist of our daily routine that's being ticked off in our minds every time a task is accomplished, in this daily hustle-bustle called "Life." But what if everything suddenly came to a stand-still, a stop, a complete halt, and we'd be left with nothing to look forward to but ourselves inside four walls of a building?

Humans are inherently social and need to connect with the society, nature, and different experiences in general. Moreover, recent research has shown that regular physical activity and movement actually augment brain function. Movement supplies brain cells with oxygen that aids in producing new brain cells and stimulates the production of brain chemicals norepinephrine and dopamine, which uplift energy and moods. It also reduces stress and calms the mind and body. In the elderly, it assists in stimulation of muscle contraction, amount of energy consumption, lowers incidences of systemic inflammation, and a reduction in chronic diseases and geriatric symptoms like osteosarcopenia and frailty compared to those who are most likely to stay indoors with very little to no movement.

Social distancing and restrictions because of the COVID-19 pandemic could therefore lead to negative physical health consequences. Social participation has several positive effects like better balance, muscle strength, good lung function, and lesser disabilities and chronic inflammation than those isolated from social involvement, especially in older adults. Studies have also confirmed increased stress levels, which lowers the effectiveness of the immune system, agitation, sleeplessness, anxiety, and depression as a result of loneliness and isolation during the lockdown by the coronavirus. Older adults are at a higher risk of having mental health concerns during isolation, especially those with chronic conditions who are likely to be home-ridden regardless of the outbreak. They shall be encouraged to stay in contact with their families daily as much as possible, maintain a positive lifestyle behavior such as sleep and mealtimes, have a healthy diet, cognitive stimulation, and perform physical activity to the best of their ability.

Imagine not having the luxury of roaming around your home or looking out a window. Imagine losing track of day and night, and darkness becomes your only light. We cannot even begin to imagine such a harsh lifestyle, but our 7th Imam Musa Al-Kadhim (as) had to live through it for more than 20 years. Imam says: "O Allah You know that I used to ask You to give me free time to worship You. 'O Allah You have done that. To You be praise." (Bihar-al- Anwar). This is the highest degree of patience. With an optimistic approach, we can learn to adapt to any situation. It is this inner drive that solidifies patience and faith in humans.



AUTISM

by Dr. Saliha Dawood-Meghji

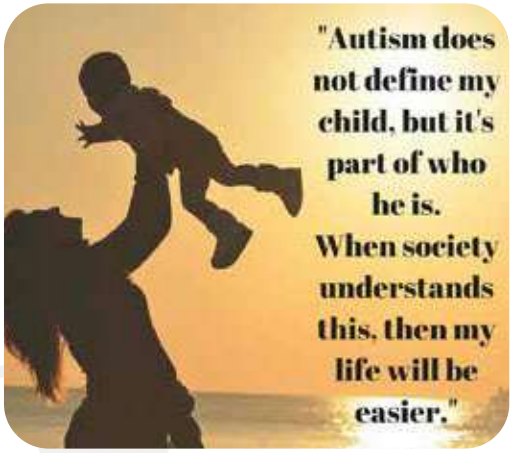
"That first time we were told about autism, we had taken it carelessly. We had never heard about it"
"I won't say the diagnosis because I don't claim to be right. Autism is something that cannot be measured in easy terms. It requires a detailed analysis. So I tell the parents that at least you seek a senior opinion."
"One of the biggest issues is that you get the diagnosis, and as a parent, you are just left to deal with it"
"We must try to understand how the autistic person thinks/processes the world around them, so we are able to better understand and support them"

These first-person perspectives of parents affected by autism and professionals supporting them highlight the similarities in experiences that a diagnosis of autism can entail around the world.
Parents share a sense of uncertainty and helplessness as a result of a diagnosis. Professionals recognize the complexity of the condition and continue to strive to understand it better, to provide adequate services and supports possible in their context.

Autism is a neurodevelopmental disorder characterized by pervasive difficulties in social interaction, communication, and behavioral flexibility since early childhood. In other words, they experience interference with their abilities to communicate and relate to others. Individuals with ASD are believed to reveal a number of unique personality tendencies.

Are Obsessive Compulsive Disorder and Autism the same?
Autism spectrum disorders include obsessive-compulsive behaviors (OCB) that partially overlap with symptoms associated with obsessive-compulsive disorder (OCD). At first glance, autism and OCD appear to have little in common. Yet clinicians and researchers have found an overlap between the two. Studies indicate that up to 84 percent of autistic people have some form of anxiety; as much as 17 percent may specifically have OCD. And an even more significant proportion of people with OCD may also have undiagnosed autism, according to one study. Part of that overlap may reflect misdiagnoses: OCD rituals can resemble the repetitive behaviors common in autism and vice versa. But it's increasingly evident that many people have both conditions. People with autism are twice as likely as those without to be diagnosed with OCD later in life.

So, can autistic individuals attain work opportunities later in life? The answer is yes! They definitely can. However, from recent statistics, an employment rate of one-third has been found for young adults in the United States and in the United Kingdom. The United Nations recently specified an employment rate of 20%. A possible explanation for the low employment rate could be barriers during job search, job application, or employment. Based on the outcome of their interviews, Müller Schuler identified such obstacles in the categories of the application process (résumés, phone contact, and interviews), the adaptation to new job routines, communication, and social interaction.



Focusing on strengths instead of weaknesses is the central idea of the concept of positive psychology. This suggests the importance of identifying and fostering the positive capabilities of individuals rather than trying to erase weaknesses.

Self-efficacy - people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. Autism-specific employment creates a more supportive environment which may lead to higher self-efficacy because such employees are supported to experience mastery and receive verbal persuasion, both of which are important sources of self-efficacy.

Thus, there is a need to educate individuals with autism, employers, and support workers to focus on strengths when paving the way for employing individuals with autism and to open up the eyes of society to the existence and brilliance of these individuals to break stigma and engage them to enhance their growth and spread awareness on Autism as a whole.

Pandemic Preparedness

Sayyada Master

A few months ago, the world was turned upside down when the emergence of COVID-19 plagued the world. When the WHO declared it as a pandemic in March 2020, life came to a halt as borders closed, work was from home, home schooling began and a restriction on seeing people out of your household. We faced wave after wave and are still nowhere close to "normality". It is essential we learn from the pandemic and collectively prepare for pandemics as individuals, families and communities. A list of things we can do to prepare:

Individuals:
- Practicing consistent and good hygiene to limit spread, including hand washing, covering the nose and mouth when sneezing and staying home when sick.
- Continue to eat a balanced diet, exercise and have a good rest as these are factors that help with your immune response.
- Find out if you can work from home and speak to your employer on the continuation of business during a pandemic.
- Plan for the possible reduction or loss of income due to businesses closing down.

Family:
- Teach children in the family good hygiene to limit the spread of infection.
- Create a family emergency plan, including taking care of the sick, death of a family member.
- Review and update your health insurance plans in the occasion that you require medical assistance.
- Gather supplies, in moderation, on the occasion that you require to quarantine, including cleaning supplies, non-perishable foods and prescription and non-prescription medication.
- Create a list of emergency contacts, such as ambulances, grocery stores and pharmacies who could deliver supplies when needed.

Community:
- Educate the community about pandemics before they occur in regards to hygiene and other areas of risk.
- Designate a group of people within the community responsible in the event of a pandemic to pass information and key messages to community members in multiple languages.
- Community leaders work with health professions to survey and monitor cases to ensure prompt restrictions and closing down of centres and mosques.
- Provide support to individuals, such as frontline workers and bereaved members with psychological and emotional support as well as isolated members of the community with virtual social support.
- Ensure that there is designated emergency funding to cater the needs of community members including but not limited to food supply, medical needs, bereavement counselling and mental health support.

The current pandemic has been a great insight on the importance of communal effort, with frontline workers and volunteers selflessly putting themselves and their families at risk. It is essential we carry the same effort for future disasters and pandemics and support each other to get through them together. As the Quran has beautifully promised, "And as for those who strive in Our path — We will surely guide them in Our ways. And Indeed, Allah is with those who are of service to others." (29:70).

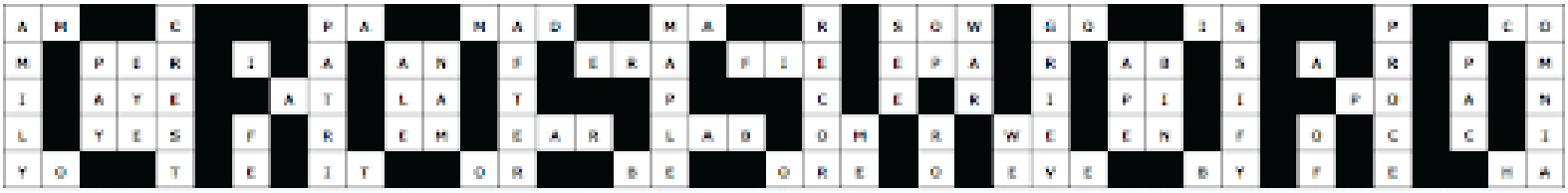
RUNGU

KILA MTU ANASTAHILI

Usingizi Mnono!

TUMIA RUNGU KUUA MBU

WHITE COATS 2021



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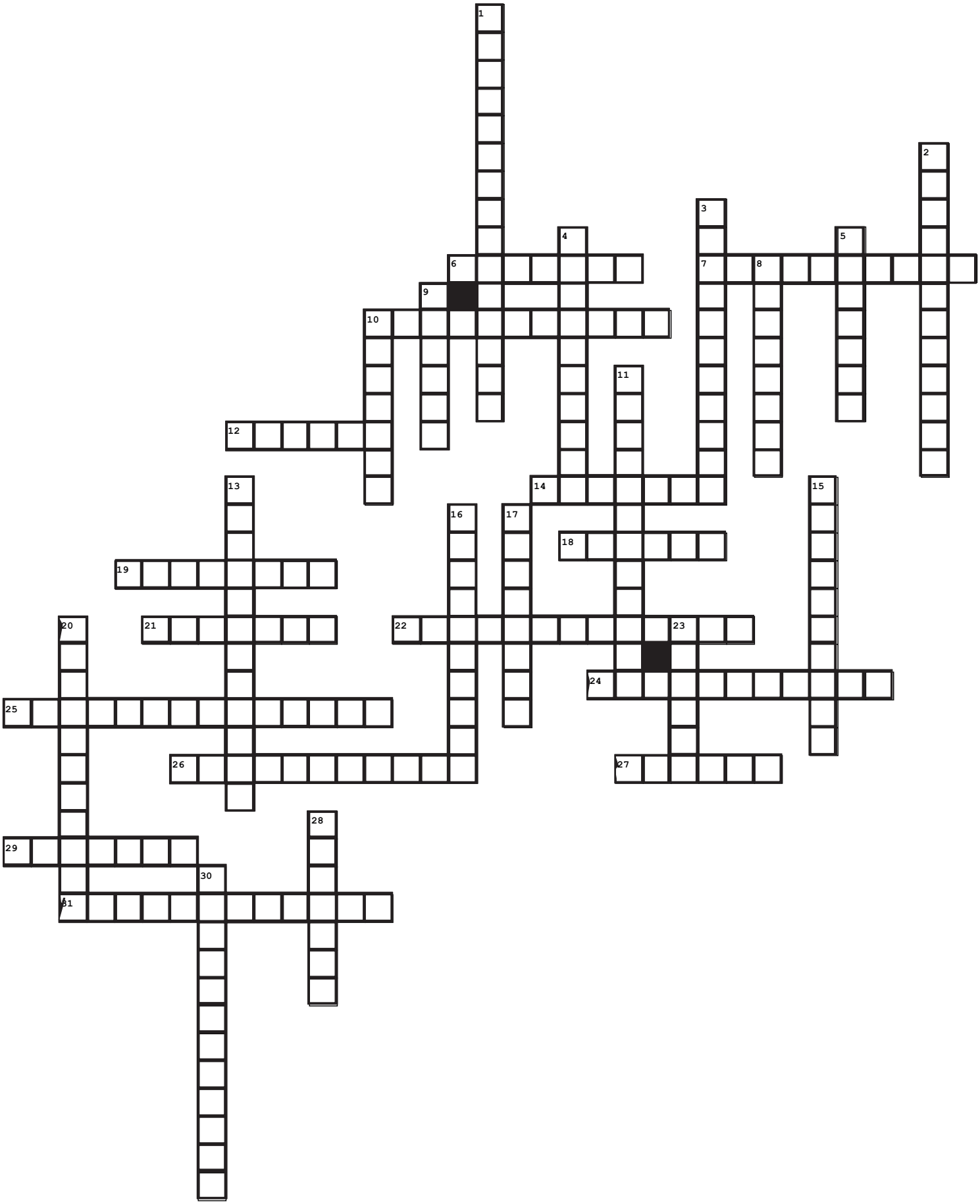


WHITE COATS 2021

ALL ANSWERS LIE WITHIN

Across

6. Interventional radiology has assisted in treating many patients who may have a blockage in this system.

7. The surgeon who pioneered the first middle bone transplant by 3D printing.

10. A science that studies the skin, hair and nails.

12. The Tanzanian term for steam inhalation which gained popularity of recent.

14. This fish skin is in experimental use to cover large areas of skin loss.

18. A neurodevelopmental disorder characterized by pervasive difficulties in social interaction, communication and behavioral flexibility since early childhood.

19. We must be prepared for this at anytime, at an individual, family and community level.

21. This type of rehabilitation facilities will allow physiotherapy anywhere.

22. Medical term for when the uterine tissue implants and grows outside of the uterus.

24. Not completing prescribed doses of this and stopping the usage of the medications once symptoms have been alleviated is what is causing resistance.

25. The organ system/group with the leading causes of death in our community from 2000 to 2016.

26. The sort of diagnosis your doctor makes initially which may be learned and predicted by artificial intelligence systems.

27. They produce around 40% of the world's coffee and have managed to hold the top position for the last 150 years.

29. This form of computing by engineers helps create clearer and more accurate medical images.

31. The American Hospital Association (AHA) reports that 76% of United States hospitals connect with patients and practitioners using this new innovation in medicine.

Down

1. A psychiatric disorder where a person is always obsessed with the idea of feeling sick with some undiagnosed disease.

2. A type of fasting which allows drinks such as black coffee, black tea, herbal tea and water throughout the day.

3. A vaccine after which you want to specifically watch out for blood clots as a side effect

4. The last name of the Italian physician who first described PCOS in 1712

5. Which syndrome can you develop after Bariatric surgery as a side effect.

8. A drop in these triggers depression in the same way as it causes mood swings before menses.

9. You need these if your teeth are too spaced out, crowded or out of place.

10. An application focused on lifestyle modification and medication management in Diabetics.

11. Preventing this is permissible but terminating a pregnancy after this is haraam.

13. This is a non communicable condition stressed upon in our community alongside diabetes, hypercholesterolemia and cancer.

15. Although this is an attractive alternative to traditional forms of physical activity, it should not replace physical exercises.

16. Medical detox causes drug abusers to go through this which needs professionals and a controlled environment to handle it.

17. This helps in providing our brain oxygen as well as assists in stimulation of muscle contraction, amount of energy consumption, lowers systemic inflammation and reduces chronic diseases.

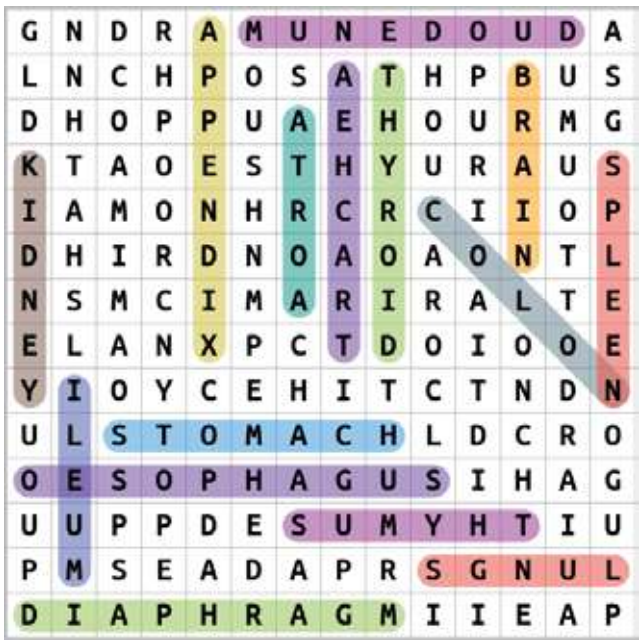
20. The Quran tells us to eat and drink but not to be of this character in relation to food.

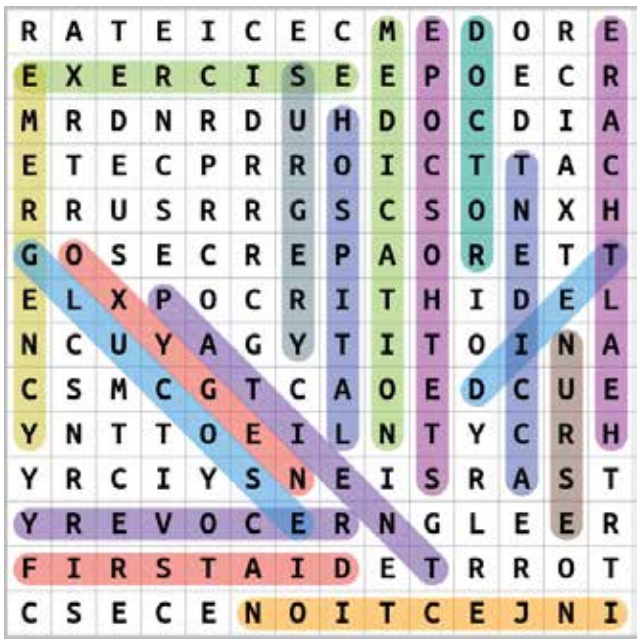
23. The fear of facing this leads people not to get tested or treated for HIV

28. Severe forms of this could have someone go completely out of their way to avoid whatever they feel is triggering the attack

30. This type of medicine helps doctors to know exactly what arrangement the lock is and in turn pick the perfect key

WORD SEARCH SOLUTIONS





SUDOKU SOLUTIONS

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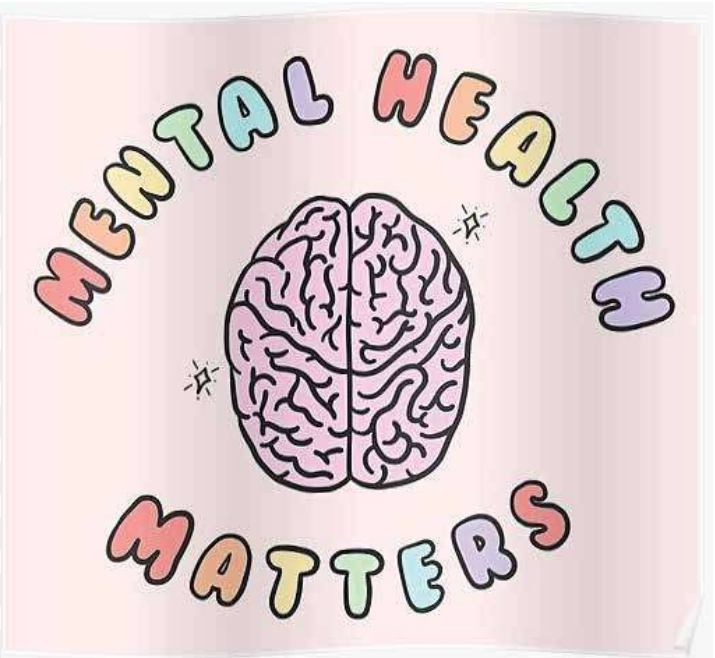

be kind to your MIND

do what you LOVE · have FUN with friends be ACTIVE · CELEBRATE what makes you SPECIAL · EAT healthy · take a BREAK · connect with others · give your TIME · help out SHARE a smile · SING · GIVE a hand · SLEEP do things BIG and small · be UNIQUE · feel totally free to BE SILLY · giggle & LAUGH

Healthy Daily Habits for KIDS

HAIR

Brush or comb your hair twice a day to keep the tangles out. Never share your brush or comb.

TEETH

Brush teeth twice a day - after breakfast and before you go to bed.

NAILS

Keep fingernails and toenails clean and trim them once a week. Bath time is usually best for trimming and cleaning under the nails.

SLEEP

Go to bed at about the same time every night. Spend some time doing a quiet activity such as reading a book or listening to music.

BODY

Take a bath or shower once a day. Wash your hair with shampoo often.

HANDWASHING

Always wash your hands with soap and water before eating, after playing outside, after going to the bathroom and after coughing or sneezing.

CLOTHING

Wear fresh clothes every day, even if your old clothes don't smell. Clean underwear is especially important.

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