ABSTRACT BOOK

Continuum Forums

International Forum on Women Healthcare

WHCFORUM2023

May 15-16, 2023 | Toronto, Canada

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Understanding the Lived-Experiences of Perimenopause and Menopause through the Lens of Self-Care Technologies

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Abstract
Menopause can be a challenging experience for many women. Not only does it affect women's physical and psychological well-being, but it may also impact their personal and social lives. Although menopause is a natural phase of life for half of the population, it is still surrounded by stigma, myths and misconceptions which make it more challenging for women to get relevant information and navigate this journey. Menopause-related symptoms like hot flushes, mood swings, night sweats, etc. can greatly vary in terms of severity, duration, and frequency for every woman. For some, these symptoms can last over a decade and thus significantly lower their Quality of Life.Along with physiological changes, we know that the socio-cultural understandings of menopause greatly affect women's experiences. However, we know little about how this impacts their day-to-day lives.

To research the lived experience of perimenopause and menopause, we used participatory methods to engage women who are undergoing this transition in an exploratory study. Parallel to patient-centered approaches, participatory methods are commonly used by human-computer-interaction and design researchers to give voice to diverse stakeholders and actively engage local and community perspectives in the research process. We collaborated with 18 women from British Columbia to map the day-to-day realities, needs, perceptions and limitations they faced, and continue to deal with, during the menopause transition. This research aims to identify the gaps and opportunities for self-care interventions that may help women undergoing menopause. In future, we plan to collaborate with women's health experts and design interactive self-care tools that may assist women with education, tracking and management of perimenopause and menopause symptoms, and adaptation to lifestyle changes, thus possibly improving their Quality of Life.

Biography
Bhairavi S. Warke, PhD Student & Research Assistant
Bhairavi Warke is a doctoral student at Simon Fraser University working under the guidance of Distinguished Professor, Dr. Diane Gromala. Her research focuses on Designing Interactive Self-care tools for Women experiencing Perimenopause and Menopause aimed toward tracking and management of symptoms and adaptation to lifestyle changes to promote overall well-being. Bhairavi holds a bachelor's degree in Instrumentation Engineering from Pune University and a master's degree in Industrial Design from Arizona State University. She worked as aDesigner and a Design Researcher at consultancies in the US and India focusing on healthcare products and services. Bhairavi is passionate about bridging Design Research with Healthcare Technology development, especially focusing on Aging Women's Health &Quality of Life.

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Phase Angle Impact on Women's Health

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Obesity and body composition in women
Around the world, in areas where the frequency of overweight-obesity reaches percentages over 70%, particularly in perimenopausal women (40's to '60s), we have observed two critical public health issues: The burden of overweight obesity and the prevalence of metabolic disorders in close relationship to breast cancer, the most common cancer in women in some geographic areas, and other malignant neoplasms, such as endometrium cancer; less known malignant neoplasm in which obesity and its influence in the body composition are head and neck cancers and UCCa (uterine cervix cancer).

The adipose tissue has been considered an endocrine organ that synthesizes a variety of adipocytokines with pleiotropic effects on metabolism. These effects are related to carbohydrateand lipid metabolic pathways, inflammatory response, angiogenesis, and carcinogenesis.

The phase angle is an anthropometric marker for malnutrition and sarcopenia. The phase angle evaluates the loss of muscle mass and the integrity of the membrane cells. Simultaneously, the reports also emphasized the participation of fat mass as a source of inflammatory mediators and molecules involved in malignant transformation and processes such as migration, proliferation, andmetastases.

Magnetic resonance imaging (MRI) or computed tomography (CT) is the gold standard for body composition assessment in clinical settings. However, one of the most efficient methods in the clinical field is bioelectrical impedance analysis (BIA), which is considered an excellent marker of the function of the cellular membrane, with the additional advantage of inferring its integrity, whichis considered a global marker of health. All of these techniques allow us to identify a loss of skeletalmuscle mass, even in patients with overweight and obesity, associated with the phenomenon of sarcopenic obesity.Even with the best treatment options, clinical outcomes and patient-reported outcomes can be affected by the patient's nutritional status, including the survival rate, functionality, and health-related quality of life (HRQoL), while the causes remain unclear.

The etiology of various malignant is multifactorial. The inflammatory–anti-inflammatory factorsbalance, nutritional status, obesity, and genetic factors are involved, and their influence is well documented.

This imbalance between inflammatory-anti-inflammatory molecules is perpetuated by obesity as alow-grade inflammatory state with metabolic dyshomeostasis. This situation conditions a high riskof a malignant transformation in various tissues and disease progression.

The most studied adipocytokines are leptin and adiponectin. However, resistin, visfatin, and adipsinmay influence the physiological and pathophysiological mechanisms, especially in overweight and obese subjects; these, in turn, impact the altered metabolic pathways seen in benign and malignant neoplastic.

In front of the pandemic, proportions of overweight and obesity represent a public health burden,with 1.9 billion overweight and 600 million obese adults worldwide suffering from one of these conditions.

Obesity and breast cancer:

BC is related to overweight-obesity. This metabolic condition provides a microenvironmental frameassociated with endocrine changes. Those changes promote tumor progression from benign to malignant features, loss of proliferative control, and invasion.

In Latin America, various malignancies such as breast, colorectal, prostate, and endometrium cancers are tied to high rates of overweight-obesity, one of the most important modifiable riskfactors.

Adipose tissue is crucial for premalignant and malignant transformation in women with high ratesof overweight-obesity.

The adipocyte interacts with the breast epithelium triggering the malignant transformation. The tissue transformation starts with BBD as a premalignant disease, especially in overweight-obese,women.

Adipsin values >0.91 mg/mL, insulin levels above 2.6 mU/mL, HOMA IR > 0.78, and visfatin levels above 1.18 ng/mL posed a risk of developing BBD in women with NBD as high as OR:75 ($p = 0.000$) and for developing BC in women with NBD OR: 56 ($p = 0.000$). The only risk factor fordeveloping cancer in the BBD group of women was postmenopausal status (OR: 2.12, CI 95%: 1.07–4.4).

The main limitation of our study is temporality, as we need to establish causality in cross-sectionalstudies. Therefore, it is necessary and desirable to realize a prospective follow-up of NBD, BBD, and BC populations to assess the behavioral pattern of adipocytokines as risk factors, calculating the relative risk or hazard ratio.

Phase Angle in Head and Neck Cancer Women:
The quality of life (QoL) of women with non-thyroid head and neck cancer (H&NC) is related totheir nutritional status. This report studied the health-related quality of life, survival, and risk of death and their relationship to phase angle (PA).

We found interesting findings when we studied this group of women and the role of phase angle insurvival and QoL in a women population with H&N cancer.

We analyze survival rates through Kaplan-Meier survival analysis. We used EORTC QLQ-C30 andH&N35 to evaluate QoL. The selected subjects were divided into two groups: women with PA $< 4.30°$ and women with PA $\geq 4.30°$. Both of them were followed up for at least two years.

Our results showed in our 32 studied women with head and neck cancer a mean age of 57.6 years. Patients with a PA ≥ 4.30 had a ≈50% higher probability of survival at two years with a better quality of life than patients with a PA$<$ $4.47°$. Statistical differences were found in the functional and symptom scales, with lower functional scores and higher symptom scores in patients with low PA. In QLQ-C30, the observed differences were Global Health State/QoL (mean 70.8 versus 75; $p=0.254$), physical (66.7 versus 84.4, $p=0.05$), and role (71.7 versus 76.4, $p=0.711$) functioning, and loss of appetite (43.3 versus 16.7; $p=0.029$), in QLQ H&N35: senses problems (33.2 versus 5.6; $p=0.007$), speech problems (41.1 versus 16.7; $p=0.047$), Teeth (56 versus 25; $p=0.036$), sticky saliva (52.1 versus 19.4, $p=0.017$). Median survival was 16.7 months for those with PA $<4.3°$ versus 32.7 months for those with PA $\geq 4.3°$ ($p<0.026$). The percentage of deceased subjects was 75% versus 33.3%; $p=0.041$).

Even with a low number of female patients with non-thyroid H&N cancer, a phase angle lower than4.3º was the most crucial predictor of impaired QoL, worse survival, and a risk factor for death.

Phase Angle in Cervical Uterine Cancer
As we commented, the phase angle, an indicator of muscle mass status and membrane cell integrity,has been

associated with low survival, poorer clinical outcomes, and worse quality of life among cancer patients. However, information on women with uterine cervical cancer (UCCa) is scarce.

In our currently sent for publishing the prospective study, performed in a group of women with UCCa, we used a bioelectrical impedance analyzer to obtain the PA of 65 women. We compared the health-related quality of life and inflammatory and nutritional indicators between low PA and normal PA. The mean age was 52±13. The low PA and normal PA groups differed in terms of the C-reactive protein (15.8±19.6 versus 6.82±5.02, p=0.022), glucose (125.39±88.19 ver-sus 88.78± 23.08, p=0.021), albumin (3.9±0.39 versus 4.37±0.30, p=0.000), EORTC QLQ-C30 loss of appetitesymptom scale score (33.33 (0.0-100.00) versus 0.0 (0.0–0.0), p=0.005), and EORTC QLQ-CX24 menopausal symptoms scale score (0.0 (0.0-33.33) versus 0.0 (0.0-100.0), p=0.03).

The main finding of the present study is the interaction between PA and obesity as critical cofactorsin the UCCa adeno and adenosquamous histologic variants, to a greater extent than cervical squamous cell carcinoma.

Biography:
Dr. Daniel Sat-Muñoz is Surgical Oncologist at the Department of Surgical Oncology at the UMAEHE CMNO of the Instituto Mexicano del Seguro Social. He leads a research team focused on Nutritional issues in oncologic patients and their metabolic characteristics. His research emphasizesthe impact of altered anthropometric and biochemical indicators on the Health-Related Quality of Life and functionality in various oncologic scenarios. His research expertise has been developed along 16 years of clinical research developed in the Instituto Mexicano del Seguro Social

At the University, he is Titular Researcher Professor. He participates as part of the Academic BodyUDG-CA-874: Morphological Sciences in the diagnosis and Treatment of Disease, where he is theLeader of Research. The collaborative projects have been developed along 14 years of joined research and Educational Programs over more than 29 years.

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Association between Maternal Lipid Profile during Pregnancy and Pregnancy Outcomes

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It is considered that more expressed alterations in lipid profile during the first trimester of pregnancy and excessive oxidative stress could be associated with pregnancy complications especially with gestational diabetes mellitus (GDM), preeclampsia (PE) and intrauterine growth restriction (IUGR). The research was conducted among maternal pregnant subjects with physiological pregnancy as control group (CG) and high-risk pregnancy subjects (HR) with special retrospective view on pregnancy complications development in HR. We monitored lipid parameters triglycerides (TG), total cholesterol (C-t), LDL-cholesterol (LDL-c), HDL-cholesterol (HDL-c), apolipoprotein A (ApoA), apolipoprotein B (ApoB) and calculated Atherogenic Index of Plasma (AIP) and ApoB/ApoA ratio. Oxidative stress parameters that we measured were lipid hydroperoxides (LOOH), thiobarbituric-acid reactive substances (TBARS), and pro-oxidant-antioxidant balance (PAB).

TG, t-C, LDL-C, AIP, apoB, apoA and apoB/apoA concentrations were significantly higher in the HR and subgroup with pregnancy complication development compared with controls ($p<0.05$). HDL-C values were significantly lower in both HR and group with complications compared with controls ($p<0.05$). Oxidative stress parameters TBARS and PAB were significantly higher in HR group and group with complications compared with CG ($p<005$), while LOOH was significantly higher in HR group ($p<0.05$).

Results have shown that maternal pregnancy complications could be associated with higher levels of proatherogenic lipids and oxidative stress parameters in the first trimester of pregnancy. These parameters could be useful for pregnancy complications risk assessment. It is also considered that specific maternal metabolic status during pregnancy can affect newborn outcomes as well as further metabolic health in later life for both mother and newborn. These research specially highlighted the AIP, apoB/apoA ratio, TBARS, LOOH and PAB as a potentially biomarkers for pregnancy complications risk assessment and creation the new predictive biochemical algorithm. These parameters are cheap, applied to biochemical analyzers and could be used in routine practice.

Biography

Daniela. Ardalic, PhD. Head of the Department of Medical Biochemistry at the Gynecology and Obstetrics Clinic in Belgrade, Serbia.

She has developed her work experience as a combination of her theoretical knowledge, research and almost 30 years of clinical practice. Her field of research is metabolic changes in pregnancy, with a special emphasis on changes in lipid parameters and oxidative stress parameters during pregnancy and their potential in prediction of pregnancy complications. Further research is directed to determine whether any of these parameters, or their combination, could be used to create new biochemical algorithm that would be useful in clinical practice. She also follows the association of these parameters with the quality of newborns and their potential influence in development of disease in later life for both mother and newborn.

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Design, Synthesis and Anti-Breast Cancer Properties of Chalcones Revealing Novel Modes of Action

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Abstract

Chalcone are one of the flavonoids which are secondary metabolites of medicinal plants. Intensive researches has been focused on both natural and synthetic chalcones because of their diverse biological activities including anticancer, anti-inflammatory, antituberculosis, anti-diabetic, antimicrobial, antibacterial activities. In order to develop chalcone compounds having a novel anticancer modes of action, especially in relation to breast cancer, seventeen poly-methoxy substituted chalcone compounds were designed and synthesized. Their chemical structures were confirmed using high-resolution mass spectrometry (HR/MS) and nuclear magnetic resonance (NMR) experiments.

As a result of applying the long-term survival clonogenic assay, compound 14 showed the best cell growth inhibitory effect. The anticancer properties of the compound 14 was investigated by measuring the effects on cell proliferation, apoptosis induction, epithelial-mesenchymal transition (EMT) and stem cell potential of MCF-7SC cells. When MCF-7SC cells were treated with various concentrations of compound 14, reduced cell viability and induced apoptosis in MCF-7SC cells were observed in a dose-dependent manner. Noteworthy is that compound 14 did not cause cytotoxicity to fibroblasts. We next tested the effect of compound 14 on the migration of MCF-7SC cells. A wound healing assay demonstrated that compound 14 prevented MCF7-SC cell migration at non-lethal concentrations after 12 and 24 hours of exposure. EMT supported the metastatic initiating potential to further site in tumor cells by losing adherent junctions and breaking down cell–cell interaction.Western blot analysis confirmed the efficacy of compound 14 on the levels of EMT marker.

To understand the anti-cancer properties of compound 14at the molecular level, in vitro kinase assays on versatile cancer related proteins were carried out. Glycogen synthase kinase 3 beta (GSK3β) was most effectively inhibited by compound 14, and the binding affinity between compound 14 and GSK3β was confirmed through in silico experiments.

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Obstetrical Neurology: A Quality Improvement Project

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Abstract
Several neurologic conditions disproportionately affect women of childbearing age. Furthermore, pregnancy itself can increase the risk of developing some neurologic conditions. Obstetrical neurology is an approach to the peripartum management of women with neurologic conditions.

In other areas of medicine, combined obstetrical clinics have been shown to improve patient outcomes and satisfaction with care. However, data regarding this multidisciplinary approach to care for neurologic conditions in pregnancy is missing.

This presentation will review an approach to neuro-obstetrical care and discuss a quality improvement project aimed to improve patient care.

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Novel Holistic Approach to Conception – It Might Truly be all in your Head!

Introduction

Infertility is common, affecting approximately one in eight couples (Cox et al, 2022), and associated with high rates of stress, anxiety and depression. It is unclear if pre-morbid mental health issues increases infertility risk, although recent evidence suggests that psychological intervention improves conception rates (Dube et al, 2023). Complementary therapies (CT) may reduce anxiety in subfertile women (Nayak et al, 2022), it is showing great promise that CT leads to increased conception rates.

Methods

This is a description of a CT intervention for infertility. The proprietary intervention is a combination of reflexotherapy, profound visualization techniques, meditation, and psychological discovery. A short case series will be presented to illustrate the interventional process involved.

Results

Of 1301 clients attending the clinic over a 13-year period, there have been 1226 conceptions and 1212 healthy live births (93.2%), including five sets of natural twins. Fourteen clients are currently pregnant. All births to date have been normal vaginal deliveries. Three cases will be discussed, each of whom had unsuccessfully been trying to conceive for 6 to 12 years with multiple rounds of invitro fertilization. Each of these clients had successful deliveries of healthy babies after less than a year of utilising this CT approach, including imagery use, visualization techniques, post graduate level reflexology and mental rehearsal.

Conclusion

This description of a reflexotherapy-based CT approach to infertility has thusfar had a high live birth rate and shows promise as a novel approach to infertility. This technique is increasingly proving reliable.

Biography

Jennifer Coady Murphy has helped thousands of women conceive and overcome an array of diagnosed conditions. She has guided them through safe, healthy, happy pregnancies and deliveries for the last 13 years with her proprietary, holistic approach to healing women and helping them conceive. She is the award-winning author of A Healing Guide to Having a Baby: Infertility, Emotional Wounds and Taking Back Your Power. Jennifer is based in Ireland.

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Apoptosome and Inflamasome in Breast Cancers

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Breast Cancer is the most feared and most frequent cause of cancer death worldwide. It affects 3.5 million women living with breast cancer in the US. and is the cause of approximately 45,000 deaths in the U.S. annually. Although the statistics show that early detection of hormonally responsive breast cancer women have expectation of a 99% 5-year disease free recovery, breast cancer recurrences can occur 40-years after treatment.

Programmed cell death, apoptosis, is precipitated by the activation of cysteine proteases of the family, including caspase 8, 9, and 3. Other caspases, such as caspase 1 and 4, are well known for their pro-inflammatory functions.

Apoptosome and inflammasome are essential to control cell death inflammatory and immune reactions to brest cancer in women.

Cytochrome c (Cyt c) released from mitochondria interacts with Apaf-1 to form the apoptosome, which initiates the caspase cascade to execute apoptosis. Although lysine residue at 72 (K72) of Cyt c plays an important role in the Cyt c-Apaf-1 interaction, the underlying mechanism of interaction between Cyt c and Apaf-1 is still not clearly defined.

We identified multiple lysine residues including K72, which are also known to interact with ATP, to play a key role in Cyt c-Apaf-1 interaction. Mutation of these lysine residues abrogates the apoptosome formation causing inhibition of caspase activation and leading to increase realice of pro-inflammatory cytokines such as interleukins (IL1 beta, IL8, Il 17. IL33), tumor necrosis factor alpha (TNF), transforming growth factor beta (TGF), and proangiogenic cytokine, vascular endothelia factor (VEGF).

We will present cases of women with Breast cancer before and after treatment with androgenic anabolic steroids, radiation and/or surgery.

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Polycystic Ovarian Syndrome and its Homoeopathic Management

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Abstract

Polycystic ovary syndrome (PCOS) is one of the most common female endocrine disorders affecting approximately 5% to 10% of women of reproductive age (12–45 years old) and is thought to be one of the leading causes of female infertility. The syndrome was first described in 1935 when American gynecologists Irving F. Stein, Sr., and Michael L. Leventhal associated the presence of ovarian cysts with anovulation.

Need for Study: An estimated 5-10% of women of childbearing age are affected by Polycystic Ovarian Syndrome and it is one of the leading causes of infertility. Since the symptoms of PCOS can vary so widely from woman to woman, doctors very often misdiagnose the condition. A study conducted in 2000 found that women suffering from PCOS have a higher risk of coronary Artery Disease.

PCOS and Insulin Resistance: The association between PCOS and insulin resistance is well recognised. It is found in 40 to 80 percent cases of PCOS. Insulin resistance is defined as a reduced glucose response to a given amount of insulin

Studies related to the scope of Homoeopathy in the treatment of PCOS-According to the research carried out by Alan V. Schmukler (2008) 36 women suffering from Polycystic Ovary Syndrome (PCOS), and fitting the mental picture of the homoeopathic remedy Pulsatilla, were given Pulsatilla 6C, 4 hourly throughout the day for 2 weeks after the end of menstruation, and this was repeated for 4 consecutive cycles. At the end of the trial 30 of the 36 women had complete disappearance of the symptoms of PCOS and the production of normal ovulating follicles and a further 4 of the 36 became asymptomatic.

Biography

An eminent and well known Homoeopathic Practitioner, Dr. K.P.Nandakumar, Graduated from Govt Homoeo medical college Trivandrum. He did his MD from MPK Homoeo med college, jaipur and PG(Hom) from UK. He has served as a faculty for 25 International conferences across the globe as well as National Homoeopathic Conferences - 15th International Homoeopathic Congress at Colombo, Dubai International Homoeopathic Conference, London Homoeopathic Conference 2010, AHML Conference at Bangkok, Kent memorial Lectures, European Homoeopathic Congress 2013, 15 and 2018,and 2019 are few among them.

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High-Sensitivity Organ-Targeted Positron Emission Tomography (PET) Camera for Low-Dose Molecular Breast Imaging

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Abstract

Breast cancer is most successfully treated if diagnosed early. The common practice in breast cancer screening for women over 50 is x-ray mammography, which relies on morphological differences to distinguish between benign and malignant tissues. Due to anatomical similarities, dense glandular tissue, surgical scars, and fibrosis are frequently misinterpreted as mammographic signs of malignancy, causing uncertainty in mammographic findings. X-ray mammography performs well in fatty breasts but performs poorly in heterogeneous and dense breasts. The situation is most urgent for women with known high-risk factors for breast cancer. These women must be screened at a significantly younger age than average-risk women. As younger women tend to have denser breasts and the sensitivity of x-ray mammography is lowered, the chance of inaccurate imaging results increases.

Lower sensitivity (50% of all women have dense or heterogeneously dense breasts) or possibly obscured lesions (40% of women) results in a large number of false-negative findings with x-ray mammography. This increases the number of patients who are diagnosed at advanced cancer stages when breast cancer is associated with worse outcomes. On the other hand, about 80% of biopsies prompted by mammography are negative. In the USA alone, this accounts for more than one million unnecessary biopsies per year that could be avoided with improved cancer-specific diagnostic imaging methods. Novel imaging tools are needed to reduce unnecessary breast biopsies and to allow large cohorts of patients to benefit from a personalized approach for breast cancer detection and improved diagnosis, ultimately reducing healthcare costs.

To address the need in personalized breast cancer detection, we developed a novel highly sensitive Positron Emission Mammography (PEM) technology for functional or molecular breast imaging, called Radialis PEM camera. Using low doses of 2-[fluorine-18]-fluoro-2-deoxy-D-glucose (FDG) radiotracer, Radialis PEM camera detects small cancerous breast lesions based on their increased glucose metabolism - the underlying pathobiology of cancer. As such, it can detect malignancy independent of breast density or hormonal changes. Here we present the results of a standardized evaluation of Radialis PEM camera imaging performance as well as selected clinical breast cancer images to illustrate the system performance within a range of circumstances including varied radiation doses (37-370 MBq), presence of chest wall lesions, and lesion detectability in comparison to WB-PET, full field digital mammography (FFDM), and breast MRI. The demonstrated clinical advantages combined with radiation dose reduction to doses equivalent or lower than tomosynthesis and even digital mammography (1.2 mSv and 0.5 mSv, respectively) open the door to routine clinical use including screening of women at high risk for breast cancer.

Biography

Dr. Alla Reznik is a Professor and Tier 1 Canada Research Chair in Physics of Radiation Imaging in the Physics Department, Lakehead University; and a Senior Scientist in the Thunder Bay Regional Health Research Institute (TBRHRI). She is a specialist in photoconductive materials and technologies for radiation medical imaging. The major focus of her work is on solid-state technology for organ-targeted Positron Emission Tomography (PET). The goal is an

improvement in resolution and sensitivity over commercially available PET imagers. Clinical trials at University Heath Network-Princess Margaret Cancer Centre are underway to demonstrate a significant improvement in detectability of small lesions compared to conventional breast imaging technologies at low radiation dose. These advancements are key to open the door to organ-specific PET for routine clinical use.

Dr. Oleksandr Bubonis an Associate Scientist at Thunder Bay Regional Health Research Institute and a CTO at Radialis Inc. Oleksandr received his H.B.Sc. Degree in Computer Engineering from Kyiv Polytechnic Institute, Ukraine in 2009. In 2018, he received his PhD Degree from Lakehead University, in the field of medical imaging detectors and devices. Dr. Bubon has 13 years of extensive experience in the field of solid-state physics, engineering, and medical imaging devices. His work has included research and development in convertible organ specific PET detection devices, with a focus on improving resolution and sensitivity while lowering the radiation dose. Dr. Bubon is a co-founder of Radialis Medical, where he is leading the development of the Radialis PEM system as a Chief Technical Officer since 2016.

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The Oral Health Status, Dentist Visiting and Dental Insurance of Female Asian Immigrants of Childbearing Age in Canada

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Abstract

Objectives

This study examined the self-perceived oral health status, dental problems, and dentist utilization of Asian potential mothers in contrast to Canadian potential mothers and non-Asian female childbearing age immigrants. Potential barriers to dental care services among Asian immigrant women were explored.

Methods

This analysis utilized data from the combined Canadian Community Health Survey from 2011-2014. The analytical sample consisted of 5,737 females whose age was between 20 and 39 years. Multivariable logistic regression models assessed immigrant status and other factors in relation to the indicators of dental health (i.e., dental visit, self-perceived oral health, acute teeth issue and teeth removed due to decay).

Results

Amongst Asian women immigrants of childbearing age, there was significantly lower frequency of dental care utilization compared to non-immigrant counterparts. The most commonly reported reason for not seeking dental care in the last three years was that the "respondent did not think necessary." Relative to Canadian born women, Asian women of childbearing age reported fewer acute teeth issues (OR=0.67; 95% CI: 0.49-0.91) and had a greater risk of tooth extracted due to tooth decay (OR=3.31; 95% CI: 1.64-6.68). Furthermore, for Asian women immigrants, their major barriers to dental care included low household income (≤39999 vs. 40000-79999 OR=0.26) and a lack of dental insurance (no vs yes OR=0.33).

Conclusions

Asian immigrant women showed lower utilization of dental services than non-immigrant women. A perceived lack of necessity, lower household income, and dental insurance coverage were major barriers to professional dental usage for most Asian immigrants of childbearing age.

Keywords

Dental health, dentist visiting, dental health insurance coverage, self- perceived oral health, Asian women immigrants

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Knowledge, Psychological Impacts and Protective Behaviours during the First Wave of The COVID-19 Pandemic among Chinese Residents in Canada with Dependent School-Age Children: A Cross-Sectional Online Study

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Abstract
Background:The purpose of this study was to describe the knowledge, protective behaviours, and psychological impact of COVID-19 on Chinese residents in Canada, as emotional and behavioural impacts of the pandemic has not been intensively studied amongst these populations. It was important to determine whether having dependent school-age children (DSAC), aged 16 or under was associated with adverse psychological impacts amongst the Chinese residents living in the country.

Methods:In April 2020, 757 eligible participants were recruited through snowball sampling to complete an online survey related to the COVID-19 pandemic. Psychological, behavioural, and sociodemographic variables were collected and analyzed using descriptive and univariate statistics.

Results: 742participants who responded to the "dependent school-age children" question were included in the analysis. Most of which identified as females(65.8%) and 77.2% included receiving a university degree or higher. There were no significant differences in COVID-19 knowledge between those living with or without DSAC. However, participants with DSAC were more likely to perceive themselves as being at greater risk of contracting COVID-19 ($p=0.023$); therefore, having a higher chance of adopting protective behaviours (e.g., hand washing, sanitizing frequently or disinfecting work and living spaces ($p<0.05$), elevated risks of depression ($p = 0.007$), and stress ($p = 0.010$), compared to those without DSAC.

Conclusions:Predominantly, theChinese residents in Canada with dependent school-age children were more likely to report negative psychological impacts of the pandemic. These findings warrant further investigations that may contribute to informing key stakeholders with theidentification and implementation of policies and interventions to support the needs of parents with young children, during and after the pandemic.

Keywords
COVID-19, children, immigrants, Chinese, Canada, knowledge, behaviours, psychology, implications

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The Added Value of Early Anomaly Scan- is it Time to Abandon NT Scan Alone?

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During the last decade, improvements in ultrasound technology and increasing number of trained feto-maternal specialists have made it possible to visualize normal fetal anatomy and to detect a wide range of fetal defects in the first trimester. Bronshtein et al have proven the utility of detailed first trimester examination performed upon detection of increased NT. Likewise; we (Zalel et al) have found major structural abnormalities in 69.8% of our cases with increased NT in both chromosomally abnormal, as well as euploid fetuses. So, if we are capable of introducing early anomaly scan in these cases - why not to “extrapolate” it to every pregnancy at 12-13 weeks of gestation.

In this lecture I’ll try to showhow capable we are of providing anomaly scan so early in pregnancy, review the literature of early detection of fetal anomalies as well as increased NT cases, highlight the limitations of screening for fetal anomalies in the first trimester and try to convince that time has come to integrate this early anomaly scan and abandon the NT scan alone.


Virtual

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High NLRP7 Expression promotes Choriocarcinoma Development in anInflammasome Independent Pathway: Proof of Concept from Clinical and Preclinical Studies

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Abstract

The inflammatory gene NLRP7 is the major gene responsible for recurrent complete hydatidiform moles (CHM), an abnormal pregnancy that can develop into gestational choriocarcinoma(CC). Yet, the role of NLRP7 in the development and immune tolerance of CC has not been investigated.Four approaches were employed to define the role of NLRP7 in CC development, i) a clinical study thatanalyzed human placenta and sera collected from women with normal pregnancies, CHM or CC, ii) anin vitro study that investigated the impact of NLRP7 knockdown on tumor growth and organization, iii)a mechanistic study that investigated the mechanism by which NLRP7 controls tumorigenic processesin malignant CC cells (JEG-3) and non-tumor trophoblastic cells (HTR8/SVneo), and iv) an in vivo study that used two CC mouse models, including an orthotopic model. We demonstrated that NLRP7 and circulating inflammatory cytokines were upregulated in tumor cells and in CHM and CC. In tumor cells, NLRP7 functions in an inflammasome-independent manner and promoted their proliferation and3D organization, while it functions in inflammasome dependent manner in non-tumor cells. NLRP7 differentially regulates the activity of NF-κB in tumor and non-tumor cells, and increases malignant cellsurvival, dedifferentiation, and camouflage. Gravid mice placentas injected with CC cells invalidated for NLRP7, exhibited higher maternal immune response, developed smaller tumors and displayed less metastases. In the preclinical model NLRP7 appears to facilitates tumor cells colonization of the lungs.This study demonstrates for the first time the mechanism by which NLRP7, independently of its inflammasome machinery, contributes to CC growth and tumorigenesis. The clinical relevance of NLRP7 in this rare cancer highlights its potential therapeutic promise as a molecular target to treat resistant GC patients.

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Cytotoxic Study of Green Synthesized Pure and Ag-Doped A-Fe2O3 Nanoparticles on Breast Cancer (MCF-7) Cell Line

Abstract

In this research attempted to prepare hematite (α-Fe2O3) and silver doped hematite nanoparticles (Ag-doped α-Fe2O3 NPs) by using the aqueous extract of Prosopisfarcta fruit. The synthesized NPs were identified through the results of X-ray Diffraction (XRD), Field Energy Scanning Electron Microscopy (FESEM), Raman, Energy Dispersive X-ray (EDX), and Vibrating Sample Magnetometer (VSM) technics. Accordingly, the NPs contained a spherical shape with a size range of 40-50 nm. Also, we surveyed their cytotoxic against human breast cancer (MCF-7) cell line, which showed a potential functionality at the concentration of 80 µg/mL. Therefore, the synthesized NPs can be proposed as an applicable candidate for medical applications.

Keywords

Ag-doped α-Fe2O3 nanoparticles, Iron oxide nanoparticles, silver nanoparticles , breast cancer

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The Potential for Genomics and Newborns to Transform Maternal and Child Care

Amy Brower

Abstract

The mandated neonatal screening of the 3.8 million babies born in the United States (U.S) each year and leverages the coordinated transition from state-based screening to medical-based treatment and family-led lifelong health management. Each year, newborn screening (NBS) leads to the diagnosis of over 25,000 infants with a rare genetic disease, and this unselected cohort reflects the racial, social, geographic, economic, and educational diversity of our nation. Up to eighty-one genetic diseases are included in screening, thirty-six of which are recommended for NBS by a federal advisory committee, but researchers estimate there are more than 7,000 rare genetic diseases (RD) that affect 6-8% of the US population or about 30 million Americans. In addition, the etiology of a substantial proportion of infant deaths is thought to be genetic and early diagnosis of treatable genetic conditions could facilitate access to treatment. Expansion of NBS has always been driven by developments in disease understanding and technology, and today, advancements in genomic technologies to diagnose disease before an individual has symptoms and then to use the genomic knowledge to design novel therapies, have led pilots of genomic-based NBS (G-NBS) around the worldfunded by countries and industry alike. In anticipation of this potential rapid expansion of NBS, experts have called for a modernization of NBS in the US and beyond. Because NBS effectively screens most newborns, and most RDs require lifelong medical management and community supports, ithas the potential to create a unique, comprehensive, and sustainable platform for understanding health inequities and social determinants of health (SDOH)and transform the care of mothers and children. This is the case because although every newborn receives essentially the same screen, a multitude of structural-level local, state, and national systems, policies, and practices, as well as individual and family circumstances, that lead to differences in what happens to a newborn and their family after a positive screen. In addition, because most NBS-identified diseases require lifelong care and management, these structural-level differences may have significant life-long health, behavioral, social, and economic impacts on an individual, their family, and their community beyond the newborn period.A recent study of 379 RDs with a prevalence of 15.5 million people in 2019 found an estimated total economic burden of $966 billion reported diagnostic odysseys averaging 6.3 years and 16.9 clinical encounters between symptom onset and RD diagnosis. This study included most of the conditions screened by NBS in the US, provided a helpful estimate of the economic impact of RD, and begins to articulate the impact on newborns, their families, and their communities of a positive NBS screen. This is important because although NBS begins with a screen, NBS is meant to be a system that, at a minimum, includes timely diagnosis, effective treatment, and comprehensive, proactive, and lifelong management of RD. Ideally, the NBS system also includes support beyond the newborn period for parents, families, communities, and adults living with RD. While fifty-three NBS programs in states, territories, and the District of Columbia (DC) coordinate the mandated screening of newborns and effectively refer screen-positive newborns to medical-based care, parents and families are then left to navigate adaunting patchwork of systems, policies, and practices to access care and follow medical recommendations that often impact all family members.

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Pregnancy and Lactancy Nutrition

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Abstract

Nutrition for pregnant and breastfeeding women is fundamental to the development of the child in its first 1000 days and beyond. To evaluate the adequacy of this nutrition, we have relied on historical dietary surveys and on personal French studies (4 studies from 1997 to 2014) involving dietary surveys over 3 days (3D-Diet). Furthermore, our team specialized in lipids has measured the fatty acids of breast milk, which reflect the dietary intake of lipids, from breast milk (1997–2014) and from the lipids of cord blood and maternal fat tissue, in 1997. According to our results, pregnancy needs require an additional 300 Kcal, but surveys show a bad equilibrium of macronutrients: an excess of proteins of fetus [17% of total energy intake (TEI) vs. 15%], excess of fats (45% vs. 35%), excess of saturated fatty acids (SFA), not enough polyunsaturated fatty acids (PUFA), particularly omega 3, and a deficit in carbohydrates (45% vs. 55%). There is also a deficiency in calcium, iron, magnesium, zinc, and vitamins D, B6, B5, and folates. Breast milk adequately provides all the macronutrients necessary for the growth of the child. Proteins and carbohydrates vary little according to the mother's diet; on the other hand, its composition in lipids, trace elements, and vitamins is highly variable with the mother's diet of breast milk. In our study in 2014, in 80 participants, the diet was low in calories (1996 Kcal vs. 2200 Kcal RDA), normoprotidic, normolipidic, but low in carbohydrate, especially polysaccharides. We note a very insufficient intake of fish and dairy products, and therefore calcium, but also magnesium, zinc, iron, and vitamins D, E, B6, and folate. Consequently, if the mother does not achieve a diet adequate to her needs during pregnancy and breastfeeding, it will be necessary to resort to medicinal supplements in minerals, trace elements, vitamins, and omega 3.

Biography

Dr.Claude Billeaud studied Neonatology at the Bordeaux University, France and graduated as MS in 1979. He was Invited Professor in 1989-90 in Ste Justine Hospital , Canada received MSc in statistic in Montreal (A+), Then received his PhD degree (Doctor ès Sciences in Nutrition) and HDR (Habilitation to direct Research) in 2000 at Bordeaux University and directed Neonatologic Nutrition Research teamin CIC 1401 Inserm Bordeaux up 2021. He directed the most important Human Milk Bank of France (Bordeaux-Marmande) and was President of European Association for Paediatrics Education (EAPE/AEEP) from 2010 to now.

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Differentiated Service Delivery for Eliminating Mother-to-Child Transmission of HIV: Addressing Barriers to PMTCT Programs

Background

Prevention of mother-to child transmission (PMTCT) is at the forefront of HIV care and treatment innovation for maternal and child health. The increasing awareness of the ART regimens and program strategies that best prevent vertical transmission of HIV has led to a dramatic increase in access to ART among pregnant and breastfeeding women over the last decade. Despite this, 90% of the new annual incident infections in children below 15 are still due to mother-to-child transmission, and several factors, including time, cost, and disclosures, still hinder adherence and retention of women living with HIV to PMTCT programs, especially in low and middle income countries.

Results

New HIV service delivery approaches like the DSD models are crucial to reducing the burden on patients and health facilities in the era of universal treatment. Under a DSD model, PLHIV who are clinically stable on treatment would need to make less frequent clinic visits than people who are ill and need intensive follow-up. WHO recently outlined key considerations for promoting DSD for pregnant and breastfeeding women living with HIV. WLHIV can be enrolled in a variety of DSD models, including fast-track ART refill, ART in MCH, family-centered groups, mother support groups, and adolescent groups. DSD models are addressing many of the PMTCT barriers by bringing services closer to where women live. For example, in South Africa, almost 90,000 stable women belong to community ART groups implemented by Médecins Sans Frontières. Family planning (FP) services can also be integrated into ART refill visits, either in facility or community. ART and FP refills visits can be formally aligned following client's requests and operational guidance supports.

Conclusion

To ensure increased uptake and scale up of the recent WHO considerations for DSD in PMTCT, programmers and policy makers should seek out opportunities in the engagement of maternal and reproductive health to recognize and facilitate delivery of ART in maternal and child health settings, in the context of the large proportion of WLHIV that are first identified on the platform (ANC, PNC, CWC, FP, ASRH).

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Fertility and Insulin Resistance Treatment

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Abstract
Pretreatment of myoinositol is a very new method that was evaluated in multiple small studies to manage poor ovarian response in assisted reproduction. This study was to determine the efficacy of myoinositol supplement in infertile women undergoing ovulation induction for intracytoplasmic sperm injection (ICSI) or in vitro fertilization embryo transfer (IVF-ET.
Myo-inositol should be considered in patients with insulin resistance, metabolic syndrome, type 1 diabetes, type 2 diabetes, PCOS and those with or at risk of gestational diabetes. Elevated levels of glucose reduce myo-inositol levels in tissues and increase its breakdown and elimination via the kidneys
Myoinositol supplement increase clinical pregnancy rate in infertile women undergoing ovulation induction for ICSI or IVF-ET. It may improve the quality of embryos, and reduce the unsuitable oocytes and required amount of stimulation drugs.

Biography
Dr. Giuseppe Gullo
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Sexual Life of Cancer and Palliative Women

Hasan M. Alkhudairi MD

During and after receiving treatment for cancer and palliative care treatments women of all ages, with early and advanced diseases or no more treatment for the diseases, will have concerns and questions about sexuality and sexual activity (even most of women in many culture fell shy to ask or talk about sexual issues). Cancer can affect sexuality either direct by affecting sexual organs or indirect by affecting psychological health, disturbing moods.
It is common for some women with different types of cancer to struggle with their body image, some of them have less desire for sexual intimacy, and/or find that penetration during sexual activity has become painful. The worth things that many health care providers do not ask patients about this normal and important aspect of health, on the other side patients should not hesitate to discuss their feelings or ask questions about the impact of cancer treatments on their sexual health. Providers should proactively discuss sexual health with their patients or consider consultation with a sexual health provider. Clinicians should be encouraged to address these issues early on in the treatment pathway and to encourage patients to discuss them. Although there is no one therapeutic strategy for sexual concerns for female cancer survivors, clinicians should be aware of the multiple modalities present, particularly as they pertain to pharmaceuticals, vaginal moisturizers, and vaginal lubricants.
This presentation attempts to answer common questions that arise.

Biography

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Consultant Of Obstetrics & Gynecology, And Palliative Medicine Has The Saudi Board in Obstetrics & Gynecology
The Saudi fellowship in palliative medicine
Palliative care fellowship Queens University Canada.
consultant of palliative medicine at Oncology center, King Saud University consultant of obstetrics and gynecology (2014-2017)
Run a clinic women's pain dealing with women's sexual Problems at maternity hospital king Saud medical city.
Joined Oncology center at King Saud University as a consultant of palliative medicine (2017-2020)
Member of many International Association of Palliative Care Member of many Societies for Sexual Medicine.

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Cervicovaginal Microbiota Combine with Vaginal Microenvironment Disorderpromotes the Poor Development of Cervical Cancerization

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Abstract

Cervical cancer poses a serious threat to women's health. Emerging evidence indicates that cervicovaginal microbiota (CVM) and vaginal microenvironment change may play an important role in the cervical carcinogenic process. However, the influence and function of CVM under different microenvironment conditions and their interaction in cervical lesions remain unclear. A total of 510 participants with different stages of cervical lesions were detected for CVM and vaginal microenvironment profile by 16S rDNA sequencing and vaginal pH, H_2O_2, and cleanness. The co-occurrence network and generalized multifactor dimensionality reduction (GMDR) model were used to examine the correlation and interaction between microbial taxa and microenvironment profile. The Kyoto Encyclopedia of Genes and Genomes (KEGG) was employed to estimate microbial functions. Our results demonstrated that CVM disorder and abnormal vaginal microenvironment were associated with cervical lesions. With the progression of cervical cancerization, *Lactobacillus* gradually depleted, while the anaerobes increased in the deteriorated vaginal microenvironment, showing the interaction of high vaginal pH, non-*Lactobacillus*-dominant, and high CVM diversity (Shannon index≥0.81). Based on co-occurrence network analysis, we found that abnormal pH and H_2O_2 were correlated to *Lactobacillus* depletion and presented a positively co-occurring relationship withanaerobes in precancerous cervical lesions. The CVM function significantly varied with the vaginal microenvironment changing in different stages of cervical lesions. Our findings suggested that CVM dysbiosis, especially combined with an abnormal vaginal microenvironment, could promote the progress of cervical lesions, highlighting the significance for warning and blocking cervical cancerization from the perspective of vaginal microecology.

Biography

Jintao Wang, Professorof Shanxi Medical University, China.

Jintao Wang graduated from Fudan University, China with Doctor's degree (Ph.D.), and has undertaken over 20 research projects, including projects of National Science Foundation of China, key Scientific Research Projects of Ministry of Science and Technology of China, and was responsible for international cooperation projects of NIH and WHO. Professor Wang led her team to major research tumor etiology and pathogenesis,especiallyfocus on the association between biological factors and cervical cancer. They have carried out a comprehensive assessment on effects of environmental, genetic, biological factors in the development of cervical cancer, providing novel evidence for the study of etiological mechanism and risk prediction of cervical cancer.

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Vaginal Microbiome Analysis - our Method and Experience

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Abstract

The vaginal microbiome is a dynamic, balanced system of microorganisms, that, under normal conditions, provides a balance between physiological Lactobacillus species and the pathogenic bacterial flora, protecting the spreading of pathogenic microorganisms, including ascending the uterine cavity. Understanding the normal flora and physiology of the human vaginitis essential for the prediction and prevention of genital infections. It is a complex environment, with cyclic changes in the microbiome. The molecular analysis of the vaginal microbiome may have a role in developing strategies for prevention and treatment of genital infections. We will present our method of molecular analysis of the vaginal microbiome in terms of the different types of Lactobacilli, Ureaplasma, Mycoplasma and Gardnerella and their role. It is the result of the conducted study of 93 reproductive-age women. We made a vaginal examination and two sterile swab samples, for Nugent score and molecular analysis of Lactobacillus spp, Gardnerella vaginalis, Mycoplasma spp and Ureaplasma spp. The identification was done by amplification of 16S rRNK genes by PCR using primers. Sequences were compared for identification of Lactobacillus strains. Identification was confirmed at 99-100% homology to the type of strain sequence. We detected 22 species of Lactobacillus, most commonly L. iners, L. crispatusand L. casei. Colonization with L. crispatus and L. casei significantly associates with normal flora. Molecular analysis confirmed the presence of causative agents of bacterial vaginosis. An overview of the types of Lactobacilli was obtained and a dendrogram created. We implemented this analysis and proposed it in terms of identification of Lactobacilli spp., Gardnerella, Ureaplasma and Mycoplasma where indicated.

Keywords

Vaginal microbiome, Lactobacillus, bacterial vaginosis, molecular analysis.

Biography

Kornelija Trajkova MD MSci PhD is a specialist in obstetrics and gynecology at the Clinical Hospital Acibadem Sistina, Skopje, Assistant Professor of obstetrics and gynecology at the Faculty of Medical Sciences, GoceDelcevUniversity Stip, North Macedonia and President of the Macedonian Multidisciplinary Society of Human Microbiome registered within the Macedonian Medical Association. Trajkova finished specialization in obstetrics and gynecology in 2007, obtained MSci degree in 2012 and PhD in 2019 in the field of gynecology and obstetrics, at the Medical faculty, University of Cyrilus and Methodius Skopje. Following her doctoral thesis, she developed method of molecular analysis of the vaginal microbiome at the CH Acibadem Sistina.
Kornelija Trajkova work experience includes Alkaloid pharmaceuticals (2001-2002), University Clinic of Obstetrics and Gynecology in Skopje (2002-2015) and Clinical hospital Acibadem Sistina (from 2015). She

was Assistant of obstetrics and gynecology at the Medical faculty University of Ss.Cyril and Methodius Skopje (2008-2015). She is Assistant Professor since 2021.

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Value and Stand of LSH-Laparoscopic Subtotal Hysterectomy

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Introduction

In selected cases, laparoscopic subtotal (supracervical) hysterectomy (LSH) is a suitable alternative to total vaginal, abdominal, or laparoscopic hysterectomy for the treatment of benign gynecologic disease.Of course the patient needs to be supervised consecutively with regular gynecological screenings. Any development of carcinoma in the cervical stump may be recognized at present times with periodic cytologic screening, and prevented with vaccination. The cervix can only be retained if no pathology like endometriosis or any cytological alterations are known. Should any problem develop, vaginal trachelectomy or large loop excision of the transformation zone by an experienced surgeon are the best options for further treatment. This technique is not suitable to be applied if the patient cannot come for regular gynecological checkups.

Procedures and results:

With 616cases of LSH between 2015 and 2022 we came to the following statements: Advantages of LSH are : 1. Easier surgery. 2. Coagulation of uterine vessels only at the level of the ascending branches of these vessels 3. No alterations of blood supply or nerval irritation for pelvic organs, 4. absolutely no increase of pelvic floor descent possibilities by this surgery and 5. With the cervical loop on electrosurgical basis the division of cervix and uterine body is exact, rapid and absolutely without danger, if the loop is placed under vision, cutting from the posterior to the anterior side of the uterine cervix.
Concering the follow up we had 5 consecutive laparoscopic assisted vaginal cervical stump resections because ofbleeding problems, but no further pathologies.

Conclusion:

Laparopscopic Subtotal Hysterectomy (LSH) by conventional or Robotic approach remains the first choice in benign hysterectomies if there are no cervical lesions known. The surgical procedure preserves the pelvic floor and is a quick and easy procedure to be done with vision and precision Literature.

Metler L, Semm K, Lehmann-Wiellenbrrkl M, et al: Comparative evaluation of classical intrafascial supracervical hysterectomy (CISH) with transuterine mucosal resection as performed by pelviscopy and laparotomy, our first 200 cases. Surg Endosc 1995;9:418-23.
Vietz PF, Ahn TS: A new approach to hysterectomy without colpotomy: Pelviscopic intrafascial hysterectomy. Am J Obstet Gynecol 1994;170:609-13.
Sadoghi H: Supracervical uterus amputation via the vaginal route. Geburtshilfe Frauenheilkd 1994;54:602-5.
Pelosi MA, Pelosi MA 3rd: Laparoscopic supracervical hysterectomy using a single umbilical puncture (minilaparoscopy). J Reprod Med 1992;37:777-84.

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The Effect of Non-Oncology Drugs on Genomic Recurrence Risk in Early Luminal Breast Cancer

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Abstract.

Background: In women with ER-positive, HER2-negative early stage breast cancer (BC), treatment decisions for adjuvant chemotherapy are based on genomic risk and clinical risk. Recently, an effect of non-oncology medications on cancer cell lines and cancer outcome have been suggested. In this study we aimed to systematically examine the impact of non- oncology drugs on clinical risk and genomic risk (based on OncotypeDx recurrence score [RS]) in early BC.

Methods:

We collected data from 1385 files of ER positive HER2 negative breast cancer patients regarding their clinical risk (stage and grade), genomic risk (OncotypeDx RS) as well as data regarding medications the patients received during the month before their surgery. Statistical analysis was applied to identify the influence of various medications on OncotypeDx RS.

Results:

Out of the various medications we examined, we found that Levothyroxine was significantly associated with high median OncotypeDx RS (RS median = 25 ;$p< 0.0001$) and Metformin was associated with low median OncotypeDx RS (RS median = 12 $p < 0.0011$) in comparison to patients not receiving these medications (RS median = 17). By contrast there were no differences in the clinical risk between patients who received Metformin or Levothyroxine. Notably, Levothyroxine and Metformin did not impact proliferation marker (Ki67) levels but did impact progesterone-related features, suggesting they influence genomic risk through estrogen dependent modules. Indeed, scores of other genomic tests (PAM50, Mammaprint), which are determined largely by proliferative features, were not influenced by Levothyroxine or Metformin. Finally, by using contemporary guidelines to recommend adjuvant chemotherapy based on clinical risk and genomic risk (OncotypeDx) we show that patients (Age > 50) who received Metformin treatment had 14.5% chance to be recommended adjuvant chemotherapy while patients who received Levothyroxine had 49% ($p = 0.0001$).

Conclusions:

The results of this study indicate significant impact of Metformin and Levothyroxine on clinical decisions with potential impact on early BC patients.

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Novel Immunomodulatory Roles of Slit2 in Breast Cancer

Manish Charan

Breast cancer is the leading cause of cancer-related mortalities in women around the world.Metastasis remains the major cause of breast cancer-related deaths. However, the molecular mechanisms that regulate the metastatic cascades are not well understood. Therefore, it is of utmost importance to increase our understanding of breast cancer metastasis. We have shown that Slit2 is a tumor suppressor protein and reduces breast cancer growth and metastasis by regulating immune cells in the tumor microenvironment. Slit2 has demonstrated anti-tumor roles in various breast cancer mouse modelsincluding spontaneous and syngeneic mammary tumor and xenograft models. Slit2 overexpression ortreatmentenhanced the polarization of M2 macrophages to M1-type macrophages. Tumor-associated macrophages (TAM) are heterogeneous in nature and comprise antitumor M1-like (M1-TAM) or pro-tumor M2-like (M2-TAM) TAMs. In addition, Slit2 enhances the phagocytic abilities of these M1 macrophages *in vitro* and *in vivo*. Importantly, a Slit2-mediated increase in M1-TAM phagocytosis occurred via the suppression of IL6. Slit2 also decreases tumor fibrosis by increasing the expression of matrix metalloproteinase 13 in M1-TAMs. Furthermore, breast cancer patient sample analysis revealed that high Slit2 expression was strongly associated with better patient survival and inversely correlated with the enrichment of $CD163^{+}$ TAMs. Overall, these studies, for the first time, elucidate the role of Slit2 in inhibiting metastasis by activating M1-TAMs and decreasing tumor fibrosis. Furthermore, these findings suggest that Slit2 can be a promising immunotherapeutic agent to redirect TAMs against aggressive and metastatic breast cancers.

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Differential Tropism for Fetal Microglia and Neuroprogenitors by Asian and African Lineage Zika Viruses

Muhammad Abdelbasset and Ashley St. John

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Abstract.

Zika virus (ZIKV) is a negative-sense enveloped RNA virus that has two genetic lineages, the African lineage and Asian lineage (found in the Asia Pacific and American regions). Although ZIKV causes a mild febrile illness in adults, recent Zika virus (ZIKV) outbreaks with Asian lineage ZIKV strains were associated with congenital abnormalities, including microcephaly and fetal demise, whereas African lineage viruses had not previously been associated with congenital disease. This raised the question whether infections with African lineage viruses were also a risk for congenital disease. Here, we compared the potential of an African strains of ZIKV with Asian lineage clinical isolates to induce microcephaly in the fetuses of infected immunocompetent mice. Our data show that, similar to Asian lineage strains, African ZIKV induces a microcephaly-like phenotype, but with reduced severity. Interestingly, the reduced severity of the African strain was associated with lower infection levels in the fetus but not mother, compared to the Asian lineage strains. For all strains of ZIKV tested, we observed that the cell types infected in the brains of fetal mice were microglia and neuroprogenitor cells. However, the African strain showed altered tropism for the cell types the brain of fetuses involving infection of a higher proportion of microglia and lower proportion of neuroprogenitors compared to the Asian lineage strains. In summary, our study underscores the possibility of multiple ZIKV strains of African and Asian lineages to induce congenital anomalies and indicate an association between cellular tropism and severity of congenital disease.

Biography.

Muhammad Abdelbasset, Postdoctoral fellow, Stanford Medicine, Division of Infectious Diseases and Geographic Medicine.

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Effects of Work-Family Conflict on Female Nurses in Abuja

Introduction
This study sets out to look at the effect of work-family conflict on married female nurses in Abuja Municipal Area Council. (AMAC). Work-family conflict is a form of inter-role conflictthat occurs as a result of incongruity between work activities and family obligations. Balancing work and family responsibilities is one major challenges that is overwhelming married female nurses in Abuja Municipal Area Council. This is so because of the peculiarity of nursing profession that requires commitment in terms of time, care and attention to patients. This study was anchored on scarcity variant of role conflict theory which maintains that people are usually compelled to trade off some responsibilities due to the finite nature of their time, physiological and emotional resources. And when these results, family obligations are mostly affected.

Method
The researcher used purposive sampling technique to select three General Hospitals in AMAC. Two hundred and forty-eight copies of questionnaires were printed and submitted to all the married female nurses in the selected General Hospitals.

Results
The study found that inability to balance work and family responsibilities makes married female nurses to be aggressive and easily irritated at work place. This is so as 75% of the research participants affirmed. Eighty percent of the respondents admitted that work-family conflict makes married female nurses to engage in mood transfer at work place, a situation that can potentiate medical error. Most of the respondents (88.3%) acknowledged that they make use of house helps like child minders and other domestic servants in their desperate efforts to balance their work and family responsibilities. The study further uncovered that some married female nurses (68.4%) engage in substance abuse due to overwhelming nature of their work and family roles in order to calm their nerves.

Recommendations
This study recommends that the married female nurses should be paid domestic servants allowances so that they will have sufficient money to pay for the services for housel helps.

Keywords:
Work, Family, Roles, Obligations, Role-Conflict, Nurses.

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Medical Ethics and the Principles of Ethical Research

Prof. RAUL ARTAL, M.D., FACOG, FACSM

Abstract

This presentation will review the milestones and the principles for Medical Ethics Research and the origin of the informed consent.

It was not until 2019 that the new federal policy for the protection of human subjects was adopted. The milestones for ethical medical research and practice will be reviewed.

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Sexual and Reproductive Health and Rights in Humanitarian Settings: A Matter of Life and Death

Rose Mary Asong Tazinya[1], Ieman Mona El-Mowafi[2], Julia Marie Hajjar[1], Sanni Yaya[3,4]

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Abstract

It is estimated that approximately 4.3 million sexually active persons worldwide will receive poor and/or limited access to Sexual and Reproductive Health (SRH) services in their lifetime. Globally, approximately 200 million women and girls still endure female genital cutting, 33, 000 child marriages occur daily, and a myriad of Sexual and Reproductive Health and Rights (SRHR) agenda gaps continue to remain unaddressed. These gaps are particularly pertinent for women and girls in humanitarian settings where SRH conditions including gender-based violence, unsafe abortions, and poor obstetric care are among the leading causes of female morbidity and mortality. Notably, the past decade has featured a record high number of forcibly displaced persons globally since World War II and has led to over 160 million persons requiring humanitarian aid globally, 32 million of which are women and girls of reproductive age. Inadequate SRH service delivery continues to persist in humanitarian settings, with basic services insufficient or inaccessible, putting women and girls at higher risk for increased morbidity and mortality. This record number of displaced persons and the continued gaps that remain unaddressed pertaining to SRH in humanitarian settings require renewed urgency to create upstream solutions to this complex issue. This commentary discusses the gaps in the holistic management of SRH in humanitarian settings, explores why these gaps persist and addresses the unique cultural, environmental, and political conditions which contribute to continued SRH service delivery inadequacies and increased morbidity and mortality for women and girls.

Biography

Rose-Mary Tazinya is a Population Health Ph.D. studentat the University of Ottawa, Canada.
She is a medical doctor with a master's degree in Public Health obtained from the University of Buea, Cameroon,andULB in Belgiumrespectively.She has acquired an extensive 10-year careerexperience and skillsranging from clinical medicine (2013 to 2016) topublic health and has handled leadership roles includingCoordinator of the Reproductive Health Unit in the Southwest Region of Cameroon (2018 to 2019) andSite Manager with the HIV-Atteindre 95 project with EGPAF Cameroon (2019 to 2022). She has a keen interest in maternal and child health and has carried out diverse community health projects and research in this domain.

Continuum Forums

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The Cone of Uterus Silence

Sarah LeBlanc

The concept of "the cone of uterus silence" has been playing around in my head for some time. It appears that the more literature I read and the more data I collect the more the cone takes shape. The purpose of my presentation is to highlight the observations that lead to my developmentof the cone of uterus silence with the hopes that one day these can be further explored and developed into a theory. My t alk will speak around each of the observations and provide information on how I plan to conduct research under each of the observations.

Observation 1: Menstruation is rarely discussed in families

Many families, especially mothers and daughters, do not talk about menstruation; those that do find moms to be uncomfortable and daughters left thinking menstruating is a negative experience (Aragón &Cooke-Jackson, 2021;Cooper & Koch, 2007; McKever, 1984). Menstruation communication should be just as normal between mothers and daughters as other aspects of sexual communication (Coffelt, 2010/2017/2021; Manning, 2021).

Aragón and Cooke-Jackson (2021) determined that Latina adolescents either don't receive any communication from their elders or receive memorable messages such as "don't use tampons". Cooper and Koch (2007) discovered many African American mother-daughter relationships avoided the topic of menstruation events. If African American mother-daughter pairs did have the talk, they perceived the conversation as being very negative. This is surprising as mother-daughter communication on sex is perceived to be positive.

A recently completed manuscript found that the lack of communication on menstruation at home hurts young menstruators' physiological and safety/security needs. Hence, we are damaging our psyches because we don't talk about menstruation at home.

Furthermore, thanks to receiving a 2023 NCA Cultivation Grant, I can begin my research by looking at parent-adolescent menstruation communication and whether an intervention device will help spark communication.

Observation 2: Menstruation is rarely discussed in schools.

Looking global menstruation research highlights what adolescent girls in school endure during their monthly cycle. Adolescent girls face issues of tardiness, truancy, and concentration (Chinyama et al., 2019; Sivakami et al., 2016). One of the few studies done in the United States echoes these concerns. When asked how menstruation impacted their high school careers, St. Louis females between the ages of 18-25 answered that menstruation impacted their attendance, academic performance, and health (Cotropia, 2019). They further went on to explain that they knew more about a frog's anatomy than they did their own.

Observation 3: Yearly pap smears don't necessarily check the health of the uterus.

Pap smears look for precancers, cell changes on the cervix that might become cervical cancer if they are not treated appropriately. Uterus check-ups include a small collection of tissue and touching. No X-rays or ultrasounds. Hence, the cervix is checked, and the feel of the uterus is checked along with the outside of the fallopian tubes. If our pap smears come back negative, we are in the clear. But are we?

When I learned I was first pregnant with my first child, I was asked "how long have you had the fibroid?" I answered, "what fibroid?" I never knew about the fibroid until the ultrasound was completed to confirm my pregnancy.

Observation 4: But pap smears do not look at the uterus, it takes a long time for diagnoses of pelvic pain and/or endometriosis. A study by Elizabeth Hintz found that many participants experience "pain is normal" talk.

Observation 5:: Society perpetuates that we keep silent about menstruation and the uterus.Because of modern-day literature and television shows, the entertainment silence surrounding menstruation is beginning to be silent no more. My colleagues and I are working on a piece examining how periods are discussed in the literature, and books published between 2017 and today. Second, my spring 2024 sabbatical is set aside to look at documents housed at Harvard regarding menstruation advertisements. And finally, if awarded an NEH grant, I can look at television and movies.

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Low Lead Concentration Exposure Induces Multigenerational Oxidative Stress in Mice

Selene Karinna Trujillo Vazquez

Abstract

Lead (Pb) is a heavy metal that alters the oxidation-reduction balance, affecting reproductive health and transfer during pregnancy and lactation. However, the multigenerational impact of exposure to low concentrations of Pb on mammalian ovaries has not been assessed. This study evaluated general parameters, histology, redox state (RS), protein carboxylation (PC), lipid peroxidation (LP), and hormone concentrations in the ovaries of mice (CD1® ICR) of three successive generations with both mutigenerational (E1) and multigenerational (E2) exposure to 0.2 ppm lead acetate through the drinking water and a control group. Body weight, food consumption, the number of born pups and their weight after weaning were not significantly affected by Pb exposure in E1 and E2. However, the ovaries of three successive generations of the E1 group, in which only the F0 was exposed, showed alterations in the ovarian histoarchitecture, increase in follicular atresia, decrease in the number of available follicles, and a significant RS and PC elevation that were surprisingly similar to those observed in the E2 group. LP increased in the second generation of E1 and E2, while hormone concentration was not altered. This is the first demonstration that exposure to low concentration of Pb induces multigenerational histological alterations and oxidative stress in mouse ovaries, that the termination of this exposure does not ensure the safety of later generations and that the lack of modifications in general parameters may facilitate the silent development of pathologies that affect ovarian health.

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Evaluation of the Carcinogenic Properties of Paclitaxel, Alcoholic and Aqueous Extracts of Ginger on Breast Cancer Cells.

Shabnam Rahimi

Abstract

Introduction and Objective: Nano liposomes are spherical nanometer capsules with a lipid membrane that are studied as drug carriers to improve the delivery of therapeutic agents. The present study was conducted to investigatetargeting of ginger-carrier herbal drug liposome nano-systemsto deliver for breast cancer cells. Recent studies suggest that it has anti-tumor, anti-fungal, insecticidal, and anti-ulcer properties.
Keywords:Nano liposomes, Breast cancer, paclitaxel, ginger extracts

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The Effect of Metabolic Syndrome on Controlled Ovarian Stimulation Outcome in Infertile Women with Polycystic Ovary Syndrome: A Prospective Cohort Study

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Abstract

Statement of the problem: Several studies demonstrated that polycystic ovary syndrome (PCOS) women have a higher risk of developing metabolic disorders which are related to obesity and metabolic features (1,2). One in four women in the United States is at risk of metabolic syndrome (MetS), and its incidence is developing every year (3). The complications of MetS have overlaps with obesity and PCOS which are linked to infertility and poor reproductive outcome (4). Therefore, the relationship between MetS and reproductive dysfunction is a debating issue for study (3, 5). Methodology & theoretical orientation: This prospective cohort study was conducted between November 2019 and November 2020 across two university-affiliated infertility centers in Iran. The PCOS diagnosis was defined according to the Rotterdam criteria. The patients prior to assisted reproduction technology (ART) cycles were evaluated for MetS diagnosis. MetS was detected according to the National Cholesterol Education Program/Adult Treatment Panel III with the presence of at least three or more of the specific clinical criteria. The cycle outcomes were compared between MetS and non-MetS groups.

Findings:

Overall, 68 eligible infertile PCOS patients with MetS diagnosis and 126 without MetS participated. The MetS diagnosis was associated with the increased requirement for gonadotropins and the duration of controlled ovarian stimulation (COS) significantly (P=0.001). Although the total numbers of retrieved and MII oocytes, obtained and top-quality embryos as well as clinical pregnancy and live birth rates in the MetS group were lower than those of in the non-MetS group, the differences were not statistically significant (P>0.05). Among the obstetrics complications, the rate of preeclampsia was significantly higher in patients with MetS (P=0.02).

Conclusion:

MetS diagnosis in PCOS patients was associated with non-significant poor COS and pregnancy outcome. Further studies with larger sample sizes are recommended to clarify the risk of MetS in patients undergoing ART cycles.

References:

1. Lim S, Kakoly N, Tan J, et al. Metabolic syndrome in polycystic ovary syndrome: a systematic review, meta-analysis and meta-regression. Obesity reviews. 2019;20(2):339-52.
2. Tavares A, Barros RCR. The prevalence of metabolic syndrome in the different phenotypes of polycystic ovarian

syndrome. Revista Brasileira de Ginecologia e Obstetrícia. 2019;41(1):37-43.
3. Cardozo E, Pavone ME, Hirshfeld-Cytron JE. Metabolic syndrome and oocyte quality. Trends in Endocrinology & Metabolism. 2011;22(3):103-9.
4. He Y, Lu Y, Zhu Q, et al. Influence of metabolic syndrome on female fertility and in vitro fertilization outcomes in PCOS women. American journal of obstetrics and gynecology. 2019;221(2):138. e1-. e12.
5. Baldini D, Beck R, Negro F, De Viti D. Assisted reproductive technologies and metabolic syndrome complications: medico-legal reappraisal. Clin Ter. 2019;170(5):e364-7.

Biography:

Dr Tawoos Rezaee obtained her medical degree in 2004 from Fatimia-e-Qom University of Medical Science and received her obstetrics and gynecology specialty in 2017 from Kabul University, Afghanistan. She received her fellowship in infertility in 2021 from Tehran University of Medical Science. Her positions were: she was doctor in Kabul for 13 years and she was master in Kateb University of Medical Science for 2 years. She has experience in medical and surgical treatment of infertility, endometriosis, laparoscopy hysteroscopy, recurrent miscarriage and all assisted reproductive treatments.

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Effect of Vaginal Scaring on the Recovery of Surgical Repair Obstetric Fistula, Northern Ethiopia, 2020

Tesfay Yohannes Ambese, Hagazi Gebre, Awtachew Berhe, Girmatsion Fisseha, Zenawi Hagos, Nigus Alemu. Mohamedawel Mohamednigus, Hiluf Ebuy

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Abstract

Objective:

To determine the effect of vaginal scaring on the recovery from surgical repair of obstetric fistula in Northern Ethiopia from 2015 to 2020.

Methods:

A hospital-based retrospective cohort study was conducted among 224 women who had obstetric fistula repair surgery in Northern Ethiopia from march 1 to march 31, 2020. Cox proportional hazards regression model was used to determine the adjusted predictors of recovery for each main baseline predictor variable, using 95% confidence interval (CI) and P <0.05 to declare statistical significance.

Results:

The overall recovery rate was 57 of 1000 women (43 of 1000 and 73 of 1000 for women with and without vaginal scar, respectively), with an overall median time to recovery from obstetric fistula repair surgery of 15 days. Vaginal scarring (adjusted hazard ratio [AHR], 1.58 [95% CI, 1.13-2.21]), age of the patient (AHR, 4.05 [95% CI, 1.56-10.5]), mode of delivery (AHR,
2.14 [95% CI, 1.31-3.49]), place of delivery (AHR, 1.91 [95% CI, 1.17-3.12]), prior repair (AHR,
1.90 [95% CI, 1.08-3.35]), and duration of catheterization (AHR, 12.91 [95% CI, 7.21-23.13]) were independent predictors of recovery.

Conclusions:

In the present study, we found that women who had no vaginal scar, age older than 30 years, facility and spontaneous vaginal delivery, first attempt repair, and shorter duration of catheterization had a shorter recover time.

KEYWORDS:

Ethiopia, obstetric fistula, predictors of recovery, vaginal scar

Tesfay Yohannes is a partner in Tigray regional health bureau assigned by EPHI practicing as public health surveillance expert for the past two years.

In his professional experience for above seven years of clinical and public health mainly the health care system and research he has been entirely involved in the design, implementation and management aspects of health care system, gender equity, GBV, HIV, maternal & child health, monitoring and evaluation, applied research, quality improvement, data analysis, developing conceptual framework and logical model.

Educational and Credentials
BSc Degree in Public Health from Mekelle University, School of Public Health in 2015

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Valid Professional license from the Federal Ministry of health, 2020

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