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Proceeding of the below Conference papers

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PREFACE

Global Academic Research Institute is proud to present GARI SUMMER MULTIDISCIPLINARY RESEARCH SYMPOSIUM 2019 which is a series of successful research symposium. The Inaugural Session and the Technical Sessions were conducted on 17th May 2019 @ Gall Face Hotel, Colombo, Sri Lanka. The conference was organized into different disciplines which empirical, conceptual and methodological papers were received from academics, practitioners and public policy makers were accepted paying austere attention to the academic standards of the papers. To maintain consistency, authors were prescribed to follow the academic writing format of the GARI Publishers. The reviewing process was apparently transparent where papers underwent a double blinded review process by eminent subject specialists in respective areas. Thus refereed full papers selected to be presented at the conference were published here. We do not assume any responsibility for any errors or omissions in the research papers which rests solely with the authors.

Special thank goes to key note addresses & Co-chairs made by Dr. Chandana Kasturi Arachchi (Faculty of Education, University of Colombo), Prof. Anil Kumar Indira Krishnan (Country Technical Lead: Non-communicable Diseases, HelpAge International, Myanmar) Dr. S.Paul Mary Deborrah (Controller of Examination, Mother Teresa Women's University, India) Dr.A.BlessingMary (Mother Teresa Women's University, India) Dr. Pathirage Kamal Perera (Department of Dravyaguna Vignana, Institute of Indigenous Medicine, Sri Lanka) The organizing committee specially thanks to our Journal Publications GARI Publishers and GARI International Journal of Multidisciplinary Research, SAP publisher, Further the support given by GARI Tours as Travel partner, Official Creative Partner Sameera Artco & Sri Lanka Convention Bureau. The conference committee expresses deep gratitude to the panel of reviewers for the priceless service rendered. Finally the committee extends sincere thanks to the presenters and participants for the valuable contribution and active participation.

Conference Committee SMRS 2019

ABOUT SRI LANKA

This is an island of magical proportions, once known as Serendib, Taprobane, the Pearl of the Indian Ocean, and Cevlon. Set in the Indian Ocean in South Asia, the tropical island nation of Sri Lanka has a history dating back to the birth of time. It is a place where the original soul of Buddhism still flourishes and where nature's beauty remains abundant and un-spoilt. Few places in the world can offer the traveler such a remarkable combination of stunning landscapes, pristine beaches, captivating cultural heritage and unique experiences within such a compact location. Within a mere area of 65,610 kilometers lie 8 UNESCO World Heritage Sites, 1,330 kilometers of coastline - much of it pristine beach - 15 national parks showcasing an abundance of wildlife, nearly 500,000 acres of lush tea estates, 250 acres of botanical gardens, 350 waterfalls, 25,000 water bodies, to a culture that extends back to over 2,500 years. Sri Lankan cinnamon, ivory and gems had been the main cause for invasion of two nations, Portuguese and Dutch, who followed the Moor traders to the country in search of the world's best spices and riches. According to the Dutch, who reorganized the cultivation and marketing of cinnamon in Sri Lanka, the 'shores of Sri Lanka had been full of it, that you can smell it eight leagues out to sea'. Even today the country produces the world best cinnamon and one of the world's top cinnamon exporters. With Endless beaches, timeless ruins, welcoming people, herds of elephants, killer surf, cheap prices, fun trains, famous tea, flavorful food, newly gained peace and improved infrastructure Sri Lanka had been repeatedly named the next tourist destination worth all the investments. Meanwhile Sri Lanka is fast gaining popularity in the MICE tourism industry, with 11% of the total visitors coming into the country representing the segment, while the industry anticipates the arrival of 240,000 MICE tourists by 2016, which is nearly 10% of the 2.5 million tourist target. With more than one million tourist arrivals in 2012 the Sri Lankan tourism service providers has set a target of 22,500 rooms in the next five years when tourist arrivals are expected to reach 2.5 million.

Discover Refreshingly Sri Lanka!

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STRENGTHENING PUBLIC HEALTH INSTITUTIONAL CAPACITY TO RESPOND TO DISEASE TRANSITION IN MYANMAR; EXPERIENCE FROM EUROPEAN UNION FUNDED PREVENTION, MANAGEMENT AND CONTROL OF NONCOMMUNICABLE DISEASES PROJECT

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ABSTRACT

In Myanmar, approximately 441,000 die annually from NCDs. These are not simply diseases of old age but are also dominant among younger members of the population. A majority of deaths among all persons between ages 30 and 70 are due to NCDs (59%). Six of the top 10 burdens of disease are attributable to NCDs (including road injuries). Myanmar has the greatest burden of disease per capita from NCDs amongst all low or middle-income countries in South-East Asia, with the burden already virtually the same as in high-income countries. Furthermore, prevalence of NCD is rising in every country and it can be concluded that almost every adult had at least one NCD risk factor (Myanmar STEP Report, 2014). In general, women are at higher risk of NCD than men in Myanmar. Myanmar have been in top among South Asia countries in terms of prevalence of many NCD risk factors. According WHO, NCD are estimated to account for (59%) of the total deaths in the country and the probability of dying between ages 30 and 70 years from the four major NCDs are 24%. The project "Strengthening public health capacity to respond to Myanmar's disease transition" was funded by European Union and implemented by HelpAge International in the beginning of 2015 in collaboration with the University of Public Health

(UPH), University of Medicine 2 (UM2) Myanmar and Faculty of Public Health, Thammasat University, Thailand. It aims to strengthen the above health institutions and other health stakeholders in Myanmar to support evidence-based public health policy and improved health services for the prevention and control of NCDs

Considering the limitation potential to respond to disease transition, the overall objective of the project was to contribute to the process of health reform in Myanmar so that the goals of equitable and universal healthcare can be achieved. Specific objectives are to strengthen the University of Public Health and wider health stakeholders to support evidencebased policy and improved health services, particularly in preparation for the transition towards non-communicable diseases in Myanmar. In order to achieve the objectives, the project identified six results:

- 1) Enhanced research and evidencebased policy analysis to inform the government's response to the health transition in Myanmar;
- (2) Greater knowledge among (1,500) policy makers and public health implementers across Myanmar on how to address the rising burden of NCD;
- (3) Increased in-country policy dialogue and consultation with a wide

range of Myanmar stakeholders on the rising challenges of NCD;

- (4) Stronger UPH academic capacity (90 academic staff) to deliver high quality teaching and research, guided by a clear institutional strategy;
- (5) Effective UPH operational capacity including project and financial management;
- (6) Active professional linkages with health institutes in other countries and South-South collaboration

The partnerships with universities helped improving the quality of health workforce, has enhanced the curricula, and advanced the research agenda for NCD and its implementation. Furthermore, staff conducted sessions on the overview of NCDs in Myanmar, explaining the trends in NCDs and risk factors, health literacy, package of essential interventions on NCDs and successful strategies for prevention and control of NCDs, the role of community health staff in prevention, control of NCDs in primary health care setting through lectures, and group work sessions. With HelpAge's support, this renewed strategy of the universities is orchestrated to ensure its uptake among the stakeholders. Finally, HelpAge drives the NCD agenda among national health authorities. Increasing the in-country policy dialogue and consultation with a wide-range of stakeholders on the rising challenges of NCDs is achieved through trainings, workshops, seminars. conferences, IEC material development, and close working relationships with policy-makers. Central to this policy work is taking lessons from the field, combined with international expertise to create understanding and uptake of the NCD strategy.

The project made significant changes in the Myanmar Health System to respond the rising NDC burden through the development of NCD unit under the MoHS, introduction of Myanmar NSP NCD (2017-2021), and expansion of Package of Essential Non-Communicable Disease Intervention (PEN) townships through training and capacity development for the townships and Basic Health Staffs (BHS). These initiatives improved the provision of access to health care on NCD services. In addition. the project supported for expanding institutional networking in exchanging knowledge as a part of institutional The project supported strengthening. strengthening the public health capacity in NCD response, which anticipated benefit upon both evidence base policy improvement and quality of health delivery for NCD services for achieving universal health coverage.

Proposed activities in the final year includes scale up of PEN training in all 330 townships to reach out to the whole country. The project will develop policy briefs based on the data from WHO STEP survey 2019, Chronic Obstructive and Pulmonary Disease survey, national mental health survey and implementation research on PEN interventions. The three centers established at University of Public Health viz centre for implementation science, knowledge hub on NCDs and NCD surveillance site will further strengthen in the current year.

In conclusion, the project carried out activities according to the plan and achieved the targets set. This shows the project is heading toward achieving overall objective to improve the health systems capacity for an equitable healthcare access to NCD services in the country. The national NCD agenda is growing in pace of development and HAI is firmly supporting the continued development with a rise in activities planned for the remainder of the year.

EFFECT OF GAMIFICATION ON UNIVERSITY STUDENTS' MOTIVATION AND ENGAGEMENT

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ABSTRACT

Gamification is progressing within different fields and non-game contexts, fusing game elements to make activities fun and entertaining. Past researches have often determined it as an effective, motivating and engaging didactic method for students in universities to rectify the flaws of the traditional methods. Although it is studied in the Sri Lankan context of education, there were very few that studied it in the Higher Education sector. This research seeks to bridge this gap. A conceptual framework was developed where individual game elements were recognized as the independent variables affecting the dependent variables: students' perception, motivation, engagement and effectiveness of the teaching method. Accordingly, a mixed approach will be used. An experiment will be conducted in the Faculty of Business of the Sri Lanka Institute of Information Technology for the first year students studying "Principles of Management" where the experimental group (n=110) will be learning through gamified sessions using Kahoot and the control group (n=110) will learn through the lecture method, over 3 sessions. A survey, using questionnaires, will determine and compare the perception of the students of the two groups and determine which game elements students find motivating. Engagement will be measured through administrative data such as attendance to sessions and Kahoots. Conducting in-depth interviews will further determine the aspects the experimental group finds motivating and engaging. Finally an assessment will determine the difference in effectiveness of the two methods in terms of students' performance. The results will derive the conclusions needed to fulfil the objectives of this research.

Keywords: E-learning, Engagement, Gamification, Higher Education, Motivation

PLAGIARISM AND ITS PREVENTION IN TEACHING/LEARNING

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ABSTRACT

Plagiarism is defined as an act of stealing someone else' text or idea and passing it on as his/her own. However, things that seem simple and straightforward may not be so in reality. Plagiarism as a concept is still evolving and controversies exist. Students/faculty may not understand plagiarism and scholars may not always agree to what constitutes plagiarism due to complex nature of research and publication. Sometimes we get confused over plagiarism vs. digital copyright, both of which are relevant to distance learning. This paper will discuss the complex issues of plagiarism and its difference from digital copyright in the US law, the reasons students plagiarize, and factors that determine if faculty will report plagiarism. Authors will explain plagiarism detection technology in simple terms and its successful vs. failed areas for detection. Finally the authors will discuss the findings from a research project that attempts to find out how effective it is to prevent plagiarism by talking about plagiarism in class and using Turnitin in a learning management system. Turnitin reports are compared on class projects between those who received plagiarism lecture and Turnitin checking and those who did not for possible differences. The real life experience using Turnitin in both online and face to face classes will be shared. The paper and presentation will be useful for anyone who is teaching both online and face to face as well as those faculty who do research and publish.

Keywords: Plagiarism, Digital Copyright, Turnitin

STRATEGIC PLAN FOR DEVELOPING THE EDUCATION AND EMPLOYMENT SECTOR IN SOUTHERN PROVINCE – SRI LANKA

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ABSTRACT

Education and Employment can be clearly identified as prominent factors of socioeconomic development of a nation. The importance of the relationship between Education and Employment can be scientifically expressed in term of interdependency behavior and the consistency of economic, technical, political and cultural parameters. The vital skills and attitudes of employees for the operational excellence in their respective organizations are highly dependent upon educational qualifications and experience in their relevant fields. This paper describes the importance and the necessity of provincial development through the factors of Education and Employment. Further, statistics and related government policies are examined to investigate the influence and the effect of the linkage between prominent factors towards sustainable development in Southern Province, Sri Lanka. In addition, the importance and the background quality of proper education for the development of socioeconomic development of people have been emphasized. Analysis has done to validate the correlation between the Education and Employment, based on statistical data sets and recommendations that have been prompted by government authorities and provincial industries, in order to reduce the unemployment rate. The implementation challenges and remedial actions are discussed in term of economic, technical, political and cultural parameters. The induced results have been consumed for the construction of strategic solutions which includes the guidelines to facilitate and achieve the operational excellence and hyphened development indicators through Education and Employment by satisfying the expectation of the industries.

Keywords: socio-economic development, education, employment, strategic plan

PROFESSIONAL DEVELOPMENT OF PRINCIPALS IN THE SRI LANKAN GOVERNMENT SCHOOLS

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ABSTRACT

The principals are considered as chief executive officers in schools. Thus, in an organization, to develop and offer a high-quality service, the managers or leaders must create a working environment in which everyone wants to perform to the best of their ability. The principals are leading, directing, commanding, and influencing several staff members, community members and various stakeholders of schools in order to achieve their targets. Therefore, training and professional development of principals, as educational administrators need to be up-to-date in order to cater to the needs of new trends in the changing environment. In the modern context of decentralization of power, it seems that the schools are given more independence to be operated as individual organizations. Thus, the contemporary educational administrator's role is undergoing rapid changes. Therefore, this study was carried out to identify the real nature of the professional development of government school principals in Sri Lanka. In addition to the main aim, some specific objectives were achieved through this study. For instance it was intended: to recognize the professional development needs identification process; the perception of stakeholders on the professional development of principals; commitment made by the principals for their professional development; the current role of education authorities on professional development of the principals of government schools and also to identify the challenges, exist for the professional development of the principals. This study used both qualitative and quantitative methodologies in order to achieve the aims and objectives of this study. The nature of this study is mixed method research, and therefore, qualitative and quantitative data was gathered through various research methods from different participants. Both qualitative and quantitative data analyzing techniques were administered to analyze the data in this study. Mainly a survey research approach was used to gather information, and several case studies also were carried out to get an in-depth understanding of the phenomenon. Although many strategies are used by the relevant authorities to identify the training needs of the principals, the majority of principals (65%) are not so happy about such systems used by their managers. The principals indicated that they are not provided sufficient and well standard professional development opportunities by their authorities. The Education officers mentioned that the principals are not willing to dedicate their own time, money and resources for their professional development, and they believe that it is one of the big challenges for implementing such activities. However, the majority of participants (70%) indicated that the selection process is biased and unethical in choosing principals for foreign training. However, it appears that the majority of participants believe that the professional development as an essential task, and it is recommended to implement a well transparent, sincere and constant effort to enhance the professionalism of the principals in Sri Lankan government schools by the relevant authorities.

Keywords: Professionalism, Principal training, Training needs, Professional development

A STUDY OF MOTIVATION FACTORS AFFECTING E-LEARNING IN HIGHER EDUCATION

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ABSTRACT

A few higher educational institutes in Sri Lanka have introduced the e-learning environment for students in external degree programs. Those programs face many educational issues such as high failures rates and low retention levels of students. Motivation is one of the crucial factors affecting students' retention in the e-learning environment. Therefore, this study examines various motivational factors affecting the e-learning environment. Student motivation is investigated under intrinsic and extrinsic motivation types. Data was collected from two levels of students who followed the Bachelor of Information Technology program at the private sector education institute. A quantitative research method was applied, using a questionnaire survey composed of Keller's ARCS model (Attention, Relevance, Confidence, and Satisfaction). The statistical analysis revealed that students at the starting level were inquisitive about e-learning and needed more attention, while the students with one-year of e-learning experience were motivated by the internal and external factors, such as acquiring knowledge and career development. This study winds up with some suggestions in enhancing the design of e-learning components to motivate learners.

Keywords: ARCS model, e-learning, intrinsic, motivation, statistical analysis

HOW OPEN ARE WE GOING TO BE WITH OER?

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ABSTRACT

OER stands for Open Education Resources and is a recent trend to combat the skyrocketing cost of textbooks. The high prices of textbooks are caused by monopoly of a small number of publishers resulting in less competition. This has consequence for higher education. According to the 2016 survey by Florida Virtual Campus, 66.6% of the students do not buy textbooks because they are too expensive. The same survey also indicates that 47.6% take fewer courses and 37% earn a poor grade due to textbook stress. This presentation will explore the impact of OER in teaching/learning and how American higher education reacts to this latest development. Discussions will include the related issues including the recent rise of new type of publishers or networks that maintain the web platforms for OER and provide training, the cost of OER (OER should be free, but maintaining OER platforms and training faculty to create OER will not be free), copyright, and the efforts by traditional textbook publishers to meet the challenge. The presentation will also review all the previous research related to the OER in teaching and learning including the evidence that students achieve better grades when their professors choose to use OER as their textbooks. This presentation intends to provide the audience A-Z information on OER. Keywords: Open Education Resources, OER, Open Source Textbooks

MUSLIM MINORITY WOMEN IN GREEK THRACE: FROM HOUSE-COCOONS TO E-LEARNING-BUTTERFLIES

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ABSTRACT

Information communication technologies and the Internet influence many people, have a global geographical coverage and are dynamic in terms of access to education, knowledge, information. They facilitate access to new processing technologies, new ways of learning, new ways of transferring knowledge, new ways of communication and understanding. This paper focuses on the efforts of Muslim minority women in Thrace, residing in the North-Eastern Greek province. There is a much evidence of an increase in participation of female students in public and minority schools in Greece during the past years, their success in graduating from Greek universities and the adaptation of Muslim minority women to the information age. This paper is grounded in qualitative research that examined the views of Muslim women regarding their access to education and e-learning. It also presents data from interviews with Muslim minority women who have continued their studies through e-learning lessons in Turkish universities, in order to receive degrees for higher levels of education beyond primary school levels. Included also is a quantitative analysis of the factors that influence their use of new technologies, based on the Technology Acceptance Model (TAM).

Keywords: Muslim minority women, ICT, e-learning

SOCIO CULTURAL IMPEDIMENTS TO ENTREPRENEURSHIP:

POLICY IMPLICATIONS FOR BRUNEI DARUSSALAM

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ABSTRACT

National culture has been shown to have an identifiable impact on the level of entrepreneurial behavior (Kreiser, Marino and Weaver, 2002). The predominantly Muslim culture of Brunei prescribes business practices that are consistent with Shariah Law where charging interest, dealing in gambling, alcohol, sex and 'unclean foods' is forbidden (Paola, 2011), Using Brunei as a case in point, we assess the influence its culture has on entrepreneurship and explore initiatives and measures that could strengthen inherent cultural values to stimulate entrepreneurship and promote economic development in that country which needs to reduce its dependence on oil and government (Bhasin, 2010).

Keywords: Entrepreneurship, Culture, Economic Development, Brunei Darussalam ASEAN, Strategy, Risk averseness, Islam

THE IMPACT OF EXPERIENCE AND EDUCATION ON NEW VENTURE PERFORMANCE IN MATARA DISTRICT, SRI LANKA

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ABSTRACT

The performance of new ventures can be affected by different factors, thus main objective of this study was to understand the relationship between founder's experience and education, and the performance of the new ventures. The dimensions of experience is categorized as previous management and previous non-management experience in a related industry, previous management and previous non-management experience in a non-related industry, and previous business experience. The dimensions of education is categorized as level of school education, industry specific education gained before and after starting up the business, and general business education gained before and after starting up the business. New venture performance is measured in terms of return on assets, revenue per employee and performance relation to competitors. The primary data for the study was gathered by distributing 100 survey questionnaires to Small and Medium Entreprenurs in Matara District, Sri Lanka. Spearman Rank Order Correlation and Multiple Linear Regression Analysis were conducted in this study to observe the relationship between independent and dependent variables. Previous management and non-management experience in a related industry, previous management experience in a non-related industry, previous business experience, industry specific education gained before starting up the business and general business education gained after starting up the business was proven to have a positive relationship with the performance of new ventures. Hence it was concluded that potential entrepreneurs and actors who promote new venture development should focus on gaining experience and education specially the categories which proven to improve business performance when starting up a business.

THE WILLINGNESS OF OMANI CONSUMERS TO BUY DOMESTIC PRODUCTS VERSUS IMPORTED PRODUCTS

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ABSTRACT

The aim of this paper is to research on consumer behaviour, specifically consumers' willingness to buy domestic products by examining the influence of consumers' ethnocentrism, conspicuous consumption and susceptibility to interpersonal influence on domestic product purchases. The study has developed a conceptual model based on previous studies related to consumer behaviour and combine the above three factors in one investigation. The research can be considered to be one of the first studies to combine these factors in the context of Omani consumer behaviour. The research used several methods to analyse the data. It starts with descriptive analysis (quantitative method). Moreover, reliability analysis is used to measure the validity of the scales. Finally, multiple regression analysis was applied to test the hypothesis. 377 respondents participated in this study by contributing in the questionnaire which speculated to them online. The paper offers new direction to literature on the subject of consumer behaviour, which establishes that consumers' conspicuous consumption and their susceptibility to interpersonal influence have a positive influence regarding purchasing domestic products, in addition to ethnocentrism. Furthermore, the limitations and implications of this research are explored and recommendations for future research are made.

PRODUCTION AND SALES ACTIVITIES FOR SAYAMA TEA IN JAPAN: EMPHASIS ON VERTICALLY INTEGRATED SYSTEMS

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ABSTRACT

This study was conducted to identify characteristics of production and sales activities of management units in regions producing Sayama Tea, which is grown in the northernmost regions of Japan that allow economic tea production. (1) Japanese green teas have unique characteristics in terms of both cultivation and processing. Particularly, the tea leaves are steamed immediately after harvesting to prevent their oxidation. This process creates the unique savor and colors of Japanese teas. After the tea leaves are subsequently rolled until they are long and thin, they are dried to produce crude tea. The crude tea processing must begin immediately after the tea leaf harvesting. This process is generally performed by tea farmers, who ship the tea leaves to the market. (2) Because no market exists to sell crude tea for Sayama Tea, a management unit having a vertically integrated system purchases the crude tea from farmers or operates the entire process. This is the most notable characteristic of Sayama Tea, for which developed systems differ from those in other tea-producing regions in Japan. (3) The management units in regions producing Sayama Tea indicate some directions according to the levels of vertical integration and product variety. More specifically, large management units tend to carry out vertical integration of stages from tea production and processing to wholesale and retail channels and simultaneously expand their product variety. Conversely, small management units have difficulty in implementing vertical integration. Therefore, some effort is needed to increase their product variety.

Keywords: green tea, product variety, Sayama Tea, vertically integrated system

CHANGE FROM TEA PASSION TO COFFEE CONSUMPTION AND INFLUENCING FACTORS: TURKEY ANALYSIS

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ABSTRACT

After the water, tea is the most consumed beverage in Turkey. Tea consumption in Turkey has increased after the 1970s, and the amount of tea consumed due to increasing population has increased in the same way. Tea consumption, which was 86,965 tons in 1980, reached 133,000 tons in 1990, 151,000 tons in 1995 and 170,000 tons in 2001. In 2018, this figure reached 250 thousand tons. Turkey ranks fifth in the world in terms of volume of tea production. Research shows that coffee consumption is beginning to substitute tea consumption in Turkey. In Turkey 10 years ago, while the average per capita consumption of coffee beans 200 grams / year, currently it has increased to 550 grams / year. Within 10 years, coffee consumption has increased by about 3 times. In the next 10 years it will be up to 1.5 kilograms. In the last 10 years, per capita tea consumption has increased in Turkey only 12 gram/year. This means that anymore the most consumed beverage in Turkey will be change from tea to coffee. This may pose a risk to produce tea. For this reason, more attention should be paid to campaigns, advertisements and product diversification for tea consumption. In this paper, after giving information about tea production and consumption patterns in the world and in Turkey, reasons which has effects on the change from tea passion to the coffee consumption will be discussed and assesses will be made about how it brings loads to the tea producers.

Keywords: Tea, coffee, tea consumption, Turkey

INVESTIGATING THE DIFFERENCES IN WEB BROWSING BEHAVIOUR OF ARABIC (RTL) AND ENGLISH (LTR) USERS USING MOUSE TRACKING

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ABSTRACT

The internet has become the global information and communication source. With such widespread usage of the web, it is crucial to marketing businesses to understand how users behave on websites. Mouse movement in any area on a webpage is an indicator of user's interest in that area. Previous studies done by using mouse or eye tracking show differences and similarities between website behaviours of Chines and European users, whereas this study focuses on Arabic (RTL) and English (LTR) readers. This study can help new and exciting businesses understand how the users of different cultures (in particular the Arabic reader who are referred in the study as right to left readers or RTL and English users who are referred as left to right or LTR readers) navigate on the web pages that are not designed in their way of reading. This paper presents an investigation in which Web browsing behaviour was examined with a help of a JavaScript Library we designed. This comparative study tries to explore whether or not there exists any differences in expected layout between Arabic and English users using mouse tracking methodology.

Keywords: Cross-culture, Eye-mouse Correlation, Website Layout, Left to Right, Right to Left

ISRAEL'S REHABILITATION BASKET MODEL - LEARNINGS FOR INDIA

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ABSTRACT

Psychiatric rehabilitation is a therapeutic approach that encourages a person with deficits due to mental illness to develop one's fullest capacities through learning and environmental support. There are only a few structured models available till date for psychiatric rehabilitation. Israel's basket model is considered as one of the best models in the world. In this paper we have critically analysed the model, and compared it with India to identify key areas that India can learn and implement from the model. Narrative literature review was done based on review of articles in pubmed & google scholar with search items "Psychiatric Rehabilitation in Israel", "Rehabilitation basket", "Psychiatric rehabilitation in India", and also based on data available in Israel's Ministry Of Health Website and data available from websites of NMHS, Rehabilitation Council Of India, WAPR - India Chapter. It was found that strong advocacy for psychiatric rehabilitation has led to Israel's legislative reforms - a separate law for psychiatric rehabilitation - Rehabilitation in the Community of Persons with Mental Disabilities Law (2000) which have contributed to reforms in psychiatric rehabilitation. Also, is better co-ordination between various ministries (housing, finance, health), structured framework of disability certification and need-based rehabilitation planning for individuals, adequate allocation of budget and research about effectiveness of the rehab programmes. In India, there is lack of co-ordination among the stakeholders involved in psychiatric rehabilitation, inadequate mental health budget, limited research and unclear rehabilitation policy are identified as problem areas to improvise in future.

Keywords: Psychiatric rehabilitation, Israel Rehabilitation basket model, India, mental health legislation.

ANTI-BLYS BIOLOGICS IN THE B-CELL TARGETED THERAPY OF SYSTEMIC LUPUS ERYTHEMATOSUS: FOCUS ON EFFICACY AND SAFETY OF BELIMUMAB, ATACICEPT AND TABALUMAB

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ABSTRACT

Systemic Lupus Erythematosus (SLE) is a heterogeneous autoimmune disease characterized by formation of autoantibodies from B cells, that target an array of selfantigens. B cells remain a prominent target for intervention, in which targeting B cell survival factor BLyS is the most efficient, as elevated BLyS levels are associated with greater disease activity in SLE. Though, there are conventional therapies available, advent of anti-BLyS biologics raised the potential of SLE treatment with the approval of belimumab. This review critically analyzes efficacy and safety of anti-BLyS biologics; belimumab, atacicept and tabalumab. Belimumab, a fully humanized monoclonal antibody, binds soluble BLyS and inhibits its biological activity. The potential of belimumab to improve disease activity, reduce flares, increase steroid withdrawal and improve overall quality of life is certainly a momentous breakthrough in lupus community. In contrast, atacicept, a recombinant fusion protein is capable of preventing BLyS binding with B cell receptors, thereby modulate autoreactive B cell function. Higher dosages of atacicept is well tolerated and shows a beneficial effect on SLE patients' clinical outcome. Tabalumab, a high-affinity human monoclonal antibody is directed against both membrane and soluble BLyS to obtain optimal therapeutic effect. The promising pharmacodynamics effect and steroid withdrawal shows the potential of tabalumab to uplift SLE patients' clinical outcome. Thus, belimumab cannot be considered as the most efficacious, since there remains a strong suggestion that higher doses of atacicept is effective, while tabalumab is proficient in targeting both soluble and membrane BLyS.

Keywords: Systemic lupus erythematosus, B cells, autoantibodies, BLyS, anti-BLyS biologics

A NOVEL PARASITIC NEMATODE SPECIFIC PROTEIN AS A POTENTIAL THERAPEUTIC AGAINST LYMPHATIC FILARIASIS

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ABSTRACT

The major causative agent of "lymphatic filariasis" is a human parasitic nematode, Wuchereria bancrofti. Since the parasitology of W. bancrofti is highly complex, Setaria digitata, a bovine filarial parasite was selected as the model organism, due to its closest resemblance to W. bancrofti and other filarial nematodes. Setaria digitata novel protein (SdNP), a protein of unknown function that is unique to parasitic nematodes was identified for functional analysis, since SdNP expresses in all tissue types of S. digitata throughout its life and it may play a crucial role in pathogenesis. The research work presented here describes the in-vitro and in-vivo characterization of SdNP. In-vivo analysis carried out by knocking down the expression with RNA interference (RNAi) technology confirmed that, SdNP is an essential protein that is required for the survival of S. digitata. Bioinformatic analysis showed that SdNP contains two putative ATPase motifs and phosphorylation sites. An enzyme coupled ATPase assay, was used to detect the ATPase activity of SdNP in vitro, and the results showed that SdNP hydrolyses ATP to ADP and inorganic Pi in a substrateindependent manner. In addition, native-PAGE and gel-filtration chromatography studies confirmed that, SdNP is a stable tetramer in vitro. The fact that SdNP is unique and essential for parasitic nematodes suggests that, it is a potential drug target against lymphatic filariasis. Therefore, elucidation of its role impacts the global health care directly and positively.

Keywords: Setaria digitata, SdNP, RNAi, Oligomer, Phosphorylation

AN EXPLORATORY STUDY ON SOCIAL SUPPORT AND ITS IMPACT ON SELF-ESTEEM OF THE TRANSGENDER COMMUNITY IN SRI LANKA

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ABSTRACT

Transgender is an umbrella term used to define any person whose biological sex does not conform to his or her own gender identity. In Sri Lanka they are called by offensive names such as "napunsaka", "ponnaya", "nachi" etc. The existing two main types of transgender categories are FtM (Female to Male) and MtF (Male to Female). This research attempts to determine the influence of social support the Trans community members are afforded from those around them and how it impacts their psychological wellbeing with regard to their selfesteem. A sum of 33 participants (19- Female to Male, 14 - Male to Female) with a demographic diversity constituted the sample for this study. In order to gather the required data, the study has used both qualitative and quantitative approaches. Data was gathered using semi-structured interviews and already existing questionnaires. Using quantitative measures the study found the presence of social support in participants' lives has a positive impact on self-esteem after coming out as a transgender person. Furthermore, thematic categories such as 1) childhood and adolescence, 2) transition; before and after and 3) social support; types and sources were emerged in the study using qualitative data analysis. The Trans community is stigmatized and marginalized in Sri Lanka; thus, this study determines to offer insights about their lives and how they really feel about themselves which highlight the fact that becoming a transgender person is not a choice

Keywords: transgender, social support, self-esteem

EVALUATING THE ANTIBIOTIC RESISTANCE OF LACTOBACILLUS BACTERIA ISOLATED FROM FRESH MILK SAMPLES

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ABSTRACT

Probiotic bacteria are bacteria which confer health benefits to a host when obtained in an adequate quantity. They are present in various foods, including fresh milk, where Lactobacillus is among the most commonly found species. Assessing the presence of Lactobacillus in food and characterization of their antibiotic resistance could be a valuable tool in manipulation of the said food, in order to provide the food a high nutritive value with added benefits of probiotics to the consumer. In the current study, five fresh milk samples obtained from cows raised by small scale farmers were cultured on Lactobacillus specific MRS media, and DNA was extracted from these cultures using three different boiled cell methods. No significant difference was observed in the amount of DNA obtained from each method (p value>0.05). This DNA was quantified using spectrophotometry to assess the amount of bacteria present in each sample, which was found to not be significantly different among each other (p value>0.05). PCR-based detection of Lactobacilli at a genus-level confirmed their presence in 3 samples (n=3). Further, from these samples, using a PCRbased assay, Tet(M) antibiotic resistance genes was detected in 1 sample (n=1). No sample contained Erm(B) resistance gene (n=0). In conclusion, Lactobacillus bacteria is present in fresh milk samples obtained directly from cows in a considerable number. All three extraction methods could be used to extract DNA from Lactobacillus cultures for further analysis. Further, some of these bacteria contain antibiotic resistance genes, which should be considered when utilizing benefits of Lactobacillus bacteria.

Keywords: Lactobacillus, Fresh milk, DNA extraction, PCR, Antibiotic resistance

DETERMINATION OF THE PRESENCE OF ESCHERICHIA COLI IN LACTUCA SATIVA OF WESTERN, SOUTHERN, CENTRAL AND NORTH-WESTERN PROVINCES OF SRI LANKA

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ABSTRACT

Escherichia coli (E. coli) is one of the most frequent foodborne pathogens associated with many of the worldwide outbreaks. Out of which, E. coli contaminating lettuce leaves has shown the highest incidence. Furthermore, E. coli has also been studied extensively as an important indicator organism of faecal contamination. Hence it serves a prime role in determining the microbiological quality of food and water sources. The present study was carried out in order to detect the presence of E. coli in lettuce leaves (Lactuca sativa) of Sri Lanka via culture, biochemical and molecular techniques. Lettuce leaves were collected from 21 different open air markets and supermarkets located in North-Western, Southern, Western and Central provinces of Sri Lanka. Out of the 21 samples tested, 14.3% of the samples were contaminated with E. coli. In which, highest incidence was observed in lettuce leaves obtained from North-Western, Southern and Central provinces of Sri Lanka. Besides, E. coli contamination in lettuce leaves obtained from supermarkets was noted to be higher compared to open air markets. In addition, coliforms such as Citrobacterdiversus (42.9%), Klebsiellaoxytoca (28.6%), Klebsiellapneumonia subsp. ozaenae (4.8%) too were detected. Furthermore plant pathogens such as Erwiniachrysanthemi which promotes the growth of E. coli was detected in two of the samples. Hence the total of 21 samples were considered to be not suitable for consumption in its' raw state, due to the detection of these pathogens. Whereas, 14.3% of the samples which harbored E. coli, were considered to be faecal contaminated.

Keywords: E. coli, Lactuca sativa, Open air markets, Supermarkets

IMPORTANCE OF MEASURING QUALITY OF LIFE ON CLINICAL RESEARCH INVOLVED IN UTERINE FIBROIDS

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ABSTRACT

The need for patent reported outcomes to assess symptom reduction of uterine fibroids has become increasingly important to evaluate the clinical success of patients who choose alternative therapies as treatments for uterine fibroids. The purpose of the study was to examine theimportance and responsiveness of the Health-Related Quality of Life measurements with treatment of uterine fibroids. Find out the impact of uterine fibroid related symptoms on health related quality of life in Ayurveda clinical trial will be a specific objective. Systematic review was carried out to collect data. Literature was search in PubMed®, MEDLINE, and Web of Science® up to April 2019 with specific key words. Articles published in peer-reviewed journals and written in English were included. Most of the studies has used Uterine Fibroid Symptom and Health Related Quality of Life Ouestionnaire (UFS-OOL) is a uterine fibroid-specific questionnaire developed to evaluate the symptoms of uterine fibroids and their impact on HRQL including studies of uterine artery embolization radiofrequency thermal ablation, magnetic-resonance-guided ultrasound surgeryand treatment with medication. But studies are very limited on assessing quality of life in fibroids cases attending Ayurveda clinics. Improvements in quality of life was associated with patient perceptions of perceived benefit and treatment satisfaction. Quality of life measurement was responsive to treatment for uterine fibroids and is a useful outcomemeasure for uterine-sparing uterine fibroid treatments. It was suggested to use this measurement for clinical trials based on Ayurveda.

Key words – Quality of life, Uterine fibroids, Clinical trials, Ayurveda

AYURVEDIC PERSPECTIVE OF ALLERGIC RHINITIS: A REVIEW

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ABSTRACT

Allergic rhinitis is an IgE-mediated immunological response of nasal mucosa to air borne allergens and is characterized by nasal congestion, watery nasal discharge, itching of the nose and sneezing. In Ayurveda system of medicine, Allergic rhinitis is described under the nasaroga (nasal diseases) as Peenasa / Apeenasa. Hence the main objective of this study is to reveal the Ayurvedic perspective of allergic rhinitis and made a correlation between these two conditions. Authentic ayurvedic texts, review articles and other related books were referred to collect the information regarding allergic rhinitis and peenasa. Review of literature expose that the concept of allergy is explained under "Asatmyajavyadhi" (Allergic disorders), while its effects are explained in hereditary, Viruddhahara (incompatible foods) and Dushivisha (polluted substances or allergic agents) and Ritusandhi (seasonal changes). These factors are compatible with the etiology of allergic rhinitis which was mentioned in modern science. Literature mentioned in the Ayurvedic authentic texts regarding the Apeenasa/Peenasamost likely refers to Allergic rhinitis due to the same signs and symptoms, watery nasal discharge, sneezing and nasal congestion. Most of the authentic texts of Ayurveda mentioned that peenasa and apeenasa are same with wording difference and also said this is the chronic or progressive stage of Pratishyaya (common cold). Also some reviewers were described allergic rhinitis as Vatajaprathishya (type of a common cold) due the similarity of signs and symptoms. Hence it can conclude that the Peenasa was more related with allergic rhinitis and it is a chronic or progressive stage of common cold due to the recurrent exposure of allergic substances.

Keywords: Allergic rhinitis, Peenasa, Common cold, allergy

THERAPEUTIC MODALITIES IN SRI LANKAN TRADITIONAL MEDICINE FOR SANDIVADAM (OSTEOARTHRITIS): REVIEW

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ABSTRACT

Sri Lanka has a long history of use Sri Lankan Traditional Medicine (STM)in health maintenance and in disease prevention and treatment, particularly for chronic diseases like Osteoarthritis (OA). Despite the importance of the OA issue, this topic has not yet been addressed in any great depth in the field of STM. By reviewing most diseases related to OA with the similarity on the basis of signs and symptoms in STM Sandivadamisthe most identical term for OA which are mainly described in many ola leaves and hand written records as well as in written books of STM. Thalpathe Pillium book series have 21 books which were rewrite from selected 100 ola leavesdonated by STM practitioners and printby Department of Ayurveda. It is one of the best sources of STM which has enormous treatment regimens for Sandivadam with life style modification measures and nutritional advices. This study aims to collect the detail description on Sandivadamand different therapeutic modalitiesinThalpathePillium book series. The study revealedthat there is a classification, treatment principle and many formulas which include internal and external treatment methods. For the advancement of the STM treatment on Sandivadam, scientific evaluation of efficacy and safety methods will make a tremendous contribution towards effective long term management of OA.

Key words: Sri Lankan Traditional Medicine, Sandivadam, ThalpathePillium, Therapeutic modalities

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