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Proceeding of the Conference include March Multidisciplinary Symposium 2023
(NCD, Marketing, Music) Papers

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About GARI

Global Academic Research Institute (GARI) is an International Scientific Research Conference Organizer in collaboration with International Universities & Institutions. GARI has brought together leading academic and industry experts from the global community who possess diverse experience and expertise in a variety of scholarly or scientific disciplines. We established in 2010 as an independent service provider then a wider range of experience GARI became a powerful arm of scientific research conference organizer in the industry.

PREFACE

Global Academic Research Institute is proud to present GARI MARCH MULTIDISCIPLINARY SYMPOSIUM 2023 which is a series of successful research symposiums. The Inaugural Session and the Technical Sessions were conducted on 04th and 11th March 2023 at Global Academic Research Institute in Paris, France. The conference was organized into different disciplines where 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-blind 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 thanks go to Sampath Priyankara (Editor-in-Chief, GARI International Journal of Multidisciplinary Research, Portugal). The organizing committee special Appreciation Online Research Publications Partner NLSL's National Digital Library and Repository in Sri Lanka, an International Academic Affiliation with Jagadguru Kripalu University - India, Department of Community Medicine, Mysore Medical College and Research Institute - India, International Federation for Fitness Health, Physical Education & Iron Games - Saudi Arabia, Australasian Institute of Ayurvedic Studies - Australia, Kathmandu School of Law - Nepal, Noble School of Business, India.

Journal Partner as GARI Publishers and GARI International Journal of Multidisciplinary Research, all other GARI affiliated academic partners, Further the support given by GARI Tours as Travel partner, Official Creative Partner Sameera Artco & MICE official Partner 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
GAMS 2023

GARI AFFILIATIONS

<< Couleur-Espace-Culture >> Association 1901 – France



Our Association aims to devote itself to the fields of art, architecture, urban planning to defend visual ecology and the harmony of colors in the environment. The different fields and domains concerned, the theoretical and methodological development as well as the practical bases of environmental projects, are at the center of the professional interest of the activities of the Association CEC Couleur-Espace-Culture.

National Digital Library and Repository – Sri Lanka



The National Library is mainly research and a reference library and it is the main library and information Centre in Sri Lanka. It intends to provide library resources as well as information to all Sri Lankans through the National Library. Powers and responsibilities of the National Library were clearly spelled out for the first time and this was a fulfillment of a long-felt need. It has become a herculean task to organize and introduce this new institution to the country and to the general public.

Jagadguru Kripalu University - India



Jagadguru Shree Kripaluji Maharaj envisioned a university that not only provides quality education but also aims at all-round personality development of the students, turning them into leaders in their chosen fields. The faculty at JKU are experts in their respective fields, with an

intense desire to teach and guide the students to success. Regular interactions with industry leaders and opportunities to be part of various conferences and seminars broaden the students' horizons.

Kathmandu School of Law – Nepal



Kathmandu School of Law, established in 2000 AD as an affiliate of Purbanchal University, is a community-based, non-profit academic institution that upholds its unrestrained commitment for a pragmatic, research-based and community responsive legal education in the country. It was conceptualized within the ambit of non-profit movement dedicated to serve the need of an academically sound and functionally feasible legal education in Nepal.

Australasian Institute of Ayurvedic Studies – Australia



The Australasian Institute of Ayurvedic Studies is synonymous with quality and authentic education in Ayurveda. The Institute was founded in 1999 in Auckland, New Zealand and is proud to be the only training Institute in Australasia offering recognized Ayurvedic qualifications in both Australia and New Zealand.

International Federation for Fitness Health, Physical Education & Iron Games - Saudi Arabia



IFFPHPEIG was established in year 1995. It is one of the largest upcoming federations around the world. The Federation was established by the Honorary President Dr. Kaukab Azeem

Noble School of Business - India



Noble Institution will be a learning community that is focused on developing youngsters who will become leaders in an era of global competitiveness and technological advancements.

Vision Factory - Spain



Our company is inspired by a modern vision, driven by mission and supported by values. We have made our vision, mission and values visible here for you

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LEONARD COHEN AND THE ART OF BETRAYAL

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“I smile when I’m angry. / I cheat and I lie. / I do what I have to do / To get by. /
But I know what is wrong. / And I know what is right. / And I’d die for the truth /
In My Secret Life.”

Recent commentary on Cohen’s songs has stressed his spiritual quest and engagement with Jewish traditions, particularly the Kabbalah -- most elaborately in Aubrey Glazer’s fine *Tangle of Matter and Ghost* (2016). Having made my own contribution to this trend (“The Fractured World of Leonard Cohen,”*) I have turned to the other side of the coin to examine betrayal instead of faith, sensation instead of spirituality, materialism instead of transcendence. One fascination of Cohen’s lyrics is that he rarely settles on a single position. His “I” expresses multiple, even contradictory points of view, often within a single song. The “textual ‘othering’ of the self, produced by self-distancing repetitions” that Winifred Siemerling finds in the fiction and poetry Cohen wrote before he turned singer-songwriter permeates his later work. Cohen’s music carries the listener over complexities and implicit conflicting points of view that emerge when the lyrics are read alone. Very little is single and straightforward. He habitually crosses realms of discourse, blending the vocabularies of love and war, for example (as in “The Traitor”), or the sacred and profane (as in “Everybody Knows”: “take one look at this Sacred Heart/ Before it blows,” seems to turn the flaming heart of Jesus’ love into something like a Molotov cocktail). He makes use of figures of speech, but as often as not he achieves his effects rhetorically through paradox, enigma, allusion and inversion. “The Old Revolution” begins: “I finally broke into the prison,/ I found my place in the chain./ Even damnation is poisoned by rainbows/ all the brave young men/ they’re waiting for a signal/ which some killer will be lighting for pay.” The effect of fluctuating points of view can be traced back to his struggle with depression and the competing mental voices, the multivocal inner struggle he sketched in 2012 as “The Background Singers.”

After a brief look at Cohen’s literary work as background, the body of my paper considers betrayal as it plays out in motifs of self-betrayal or self- defeat, (in “Famous Blue Raincoat” he is cuckolded by a *doppelgänger*), then in relationships, (who but Cohen could sing “If I have been untrue/ I hope you know it was never to you,” and be believed), and finally by institutions both political and religious. These levels of betrayal are rarely presented in isolation. Cohen’s spiritual journey gave hope of transcendence. Without that hope the life of the senses is a terminal materialism that in retrospect seems predetermined. “Puppet me and puppet you/ Puppet German, Puppet Jew/...Puppet Presidents command/Puppet troops to burn the land/... Puppet night comes down to play/ The after act to puppet day.”

*In *Ruins in the Literary and Cultural Imagination*, eds. Efterpi Mitsi, et al. Palgrave, 2019.

FEAR OF COVID-19 AND CONSUMERS' FOOD CONSUMPTION ATTITUDES: A FOCUS ON ONLINE FOOD DELIVERY SERVICES

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ABSTRACT

The study analyses the influence of fear of COVID-19 and perceived risk of eating out during COVID-19 on the consumers' attitude toward adopting online food delivery services (OFDS) brands. In addition, the paper investigates the impact of this attitude on the establishment of positive emotions (i.e., brand love) up to addictive ones (i.e., brand addiction and continuance intention after COVID-19) toward OFDS brands. To achieve these objectives, a web-based self-completion survey and a subsequent structural equation modelling have been adopted based on a sample of 398 participants. Findings show that fear of COVID-19 positively impacts on perceived risk of eating out, which in turn positively influences the consumers' attitude toward adopting OFDS brands. Results also underline how these relationships can trigger a virtuous cycle leading to the emergence of consumers' positive and addictive emotions towards OFDS brands. The paper offers interesting theoretical and managerial implications. Theoretically, it represents one of the first attempts to examine the brand love and brand addiction constructs in the OFDS context. Moreover, it enriches the scarcity of studies focused on the OFDS industry in the COVID-19 period, particularly by investigating the fear of COVID-19's impact on consumers' food consumption habits and attitudes. From a managerial perspective, the paper focuses on analysing one of the sectors hardest hit by the pandemic by also identifying possible OFDS strategies restaurants can adopt in order to provide customers additional value in the COVID-19 scenario.

Keywords: fear of COVID-19, perceived risk of eating out, food consumption attitudes, positive and addictive emotions, online food delivery services

**THE IMPACT OF PERCEIVED BRAND AUTHENTICITY OF GREEN
NARRATIVE BRANDS ON GREEN TRUST ONLINE - THE MODERATING ROLE
OF CONSUMER BRAND ENGAGEMENT AND BRAND EXPERIENCE ON
WILLINGNESS TO PAY A HIGHER PRICE**

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ABSTRACT

In many countries, a trend towards more sustainable consumption has been observed for several years. But consumers do not often turn their sustainable intentions into environmentally friendly purchasing behaviour. Especially in the fashion industry, the trend does not seem to have caught on yet, because the fast fashion industry has been experiencing steady growth for years. In contrast, sustainable apparel takes up only a small share of the market volume. Additionally, customers return fashion items on the internet if they are not satisfied, which leads to immense costs on the part of the companies and this also pollutes the environment. This also harms the reputation of green brands in particular. This study aims to understand the impact between consumers' cognitive appraisals underlying emotions and explain their influence on consumer behaviour when buying sustainable apparel online. For this purpose, the study applies the cognitive appraisal theory of emotions. The variables of brand authenticity, green trust and customers' willingness to pay a higher price build the research model. Furthermore, the variables of consumer brand engagement and brand experience are applied as moderators. On this basis, the influence of brand authenticity on green trust is investigated for green narrative brands. In this context, the study also investigates whether customers are more willing to pay a higher price for sustainable fashion on the internet. The study focuses on companies located in the English-speaking world that ship their goods worldwide. The research contributes to a better understanding of consumer behaviour concerning customer appraisals of sustainable fashion.

Keywords: brand authenticity, brand trust, willingness to pay a higher price, consumer brand engagement, brand experience

NATIONAL DIABETES REGISTRY STATISTICS DURING THE COVID-19 PANDEMIC IN ALBANIA

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ABSTRACT

Aim: In Albania diabetes mellitus (DM) is quite prevalent showing increasing trends over time. DM can damage the heart, blood vessels, eyes, kidneys, and nerves. Worldwide, adults with diabetes have a two-to-three-fold increased risk of heart attacks and strokes. Documenting the impact of the COVID-19 pandemic on the newly diagnosed diabetes cases in Albania is important. **Methods:** Diabetes data were collected for the period 2019-2021. Diabetes incidence, prevalence and mortality rates were calculated using data from national diabetes registry, primary health care services and National Institute of Statistics. **Results:** In 2020, the number of new diabetes cases was almost halved compared to 2019. In 2021, the number of new cases increased by 146% compared to 2020, and still more new cases than in 2019 were observed, corresponding to a 31% increase. The registered prevalence of diabetes in primary care has been increasing steadily and has almost doubled over the last ten years. In 2021, the highest prevalence was registered in regions of Fier, Gjirokastra, Lezha and Tirana (405.5, 387.7, 360.1 and 331.3 cases per 10.000 inhabitants, respectively). The standardized mortality rate from diabetes has been declining over the past ten years (from 6.5 to 5.6 cases per 100.000 inhabitants in 2012 and 2021 respectively). **Conclusions:** Diabetes, being a major risk factor for cardiovascular diseases, indirectly contributes to the burden of mortality from cardiovascular diseases. Diabetes registry is an important public health tool for undertaking the necessary public health interventions.

Keywords: Albania, COVID-19, diabetes, incidence, diabetes registry, prevalence.

REFERENCES

- Diabetes.* World Health Organization. 2021 <https://www.who.int/news-room/fact-sheets/detail/diabetes>
- Diabetes.* Center for Disease Control and Prevention. 2022 <https://www.cdc.gov/diabetes/data/statistics-report/index.html>
- Diabetes Atlas.* 10th Edition. International Federation of Diabetes. 2021 https://diabetesatlas.org/idfawp/resource-files/2021/07/IDF_Atlas_10th_Edition_2021.pdf
- National Diabetes Register.* Institute of Public Health. 2022
- Diabetes prevalence data.* Health Care Insurance Fund. 2022
- Diabetes mortality data.* INSTAT. 2022

THE IMPACT OF PROCEDURAL LAW ON ARTIFICIAL INTELLIGENCE BY IMPROVING THE HEALTHCARE SYSTEMS

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ABSTRACT

We could not deny that artificial intelligence had had an impact on healthcare. However, it has certain issues. In recent years, civil law and medical ethics have both addressed this issue. The law of liability is necessary when artificial intelligence is applied in healthcare services because it raises the possibility of bad decisions and the issue of who has responsibility for them. The Ethical and Governance Recommendations for AI for Health Systems, released by the World Health Organization, intends to establish ethical guidelines on the deployment of artificial intelligence to address the potential ethical and legal implications of non-discrimination and accountability. Providers of artificial intelligence services must adhere to moral and legal principles that are consistent with international considerations and user protection laws. To build AI ethics, it is necessary to raise accountability and enhance legal and regulatory frameworks.

Keywords: health services, legal process, artificial intelligence

DETERMINATION OF THE ANTIBACTERIAL ACTIVITY OF AZADIRACHTA INDICA (NEEM) ON ESCHERICHIA COLI AND STAPHYLOCOCCUS AUREUS

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ABSTRACT

Bacteria are small unicellular organisms and can be found abundant in the world. Antibiotic resistance is caused when bacteria change the way they respond to the medicines. “Kohomba” or “Neem” leaves are considered antibacterial and fungicidal medicine that is widely used within Sri Lanka. Many parts of the Neem tree including the leaves, bark, fruit and flowers are used to cure various diseases. The main objective of this study was to determine the antibacterial activity of *Azadirachta indica* (Neem), on *Escherichia coli* and *Staphylococcus aureus* strains. Solvent extraction, Soxhlet extraction, Maceration, Supercritical fluid extraction and Microwave-assisted extraction are commonly used for Neem extraction. This study employed the solvent extraction method using three solvents: water, ethanol and hexane. The solvent extraction method was used as it is inexpensive, can collect pure extract, can produce large extract and is easy to use with less effort. The disc diffusion method was done to determine the antibiotic susceptibility of the plant extract. All three Neem leaf samples showed not susceptible to both bacteria as they showed no inhibition zones. This could be due to the extraction method or temperature, but the literature has shown strong evidence of antibacterial properties in Neem.

Keywords: *Azadirachta indica* (Neem), Solvent extraction, *Escherichia coli*, *Staphylococcus aureus*

**A QUESTIONNAIRE BASED SURVEY WITH PHYSICIANS FOR
EFFECTIVENESS AND TOLERABILITY OF SECNIDAZOLE IN
PERIODONTITIS AT SRI LANKA**

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ABSTRACT

Background: Periodontitis is a chronic inflammatory disease affecting supportive gingival tissue. Since most of periodontal infections causes orofacial infections, the prescribing of antimicrobials by physician has become important in dental practice. Antimicrobials are the mainstay of the treatment of periodontitis. Objective: To conduct questionnaire-based survey among physicians in Sri Lanka for the effectiveness and tolerability of Secnidazole in periodontitis. Materials and Methods: A prospective observational study conducted for six months with physicians based at Sri Lanka. A questionnaire was prepared in consultation with key opinion leaders, including ten questions which focused on effectiveness and tolerability of 2gm Secnidazole in patients with periodontitis. Physicians voluntary consent was taken in person for their participation in the survey. Results: A total of forty-one responses were received from physicians, it was observed that 90.2% physicians prescribed antibacterial followed by antiprotozoal in dental infections. Most common symptom for the prescription of Secnidazole was periodontal pus 53.7% accompanied by inflammatory symptoms 46.3%, and bleeding gums. Secnidazole 2gm single dose was preferred by 87.8% physicians for its convenient dosing over the metronidazole, tinidazole and ornidazole. Physicians found Secnidazole was good to excellent for effectiveness in 97.6% and tolerability in 97.6% for periodontitis. Conclusion: Secnidazole 2gm single dose was found effective and tolerable in the treatment of periodontitis. It is preferred over the other nitroimidazole drugs like metronidazole, tinidazole and ornidazole for its convenient dosing. From the survey it is observed that, physicians were in favor of Secnidazole for treatment of periodontitis.

Keywords: Secnidazole, Periodontitis, Survey, Effectiveness, Tolerability

PREVENTION OF OSTEOPOROSIS THROUGH AYURVEDA

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ABSTRACT

Osteoporosis is a 'silent disease', which related fractures or degenerative changes of bones may results in weaken bones to the points where they break easily and leads to bed ridden or sorrowful death. The disease is characterized by low bone mass, deterioration of bone tissue, disruption of bone microarchitecture and big spaces in the bone structure. According to Ayurveda Asthi dhathu is responsible for this condition. The formation and nutrition available to each tissue to form its components in a regular and healthy way depends on how best the previous tissue is nourished from the essence of nutrition provided from the gut. Ayurveda recommends holistic treatment for osteoporosis which involves avoiding factors that lead to the vitiation of vata dosha that ultimately lead to worsening of the condition. Antarpamarjana (Oral internalmedicine) Bahirparimarjana (External therapeutic methods) ,Shodana (Purification), rejuvenate treatments and palliative treatments can do for prevention as well as cure the disease according to Ayurveda samhitas. Basti Karma is the introduction of liquid-based Ayurvedic medication, such as herbal oils or decoctions, through the patient's colon. This balances out the vata dosha, which is predominantly located in the colon and bones. In this manner, there are some specific basti therapies which enable bone strength. For instance, Nirhua basti and Anuvasana basti provide such benefits. Similarly, treatments such as Abhyanga, pichu, Kati Basti and dhara karma can increase the strength and range of body joint movements. Additionally, Ayurveda recommends a combination of healthy diet (pathyaahar) and lifestyle changes (pathyavihar), yoga vyayama and meditation in order to manage osteoporosis effectively.

Key words: Asthi dhathu, Antarpamarjana chikithsa, Bahirparimarjana chikithsa, Vasti karma

**IDENTIFICATION OF E. COLI IN DRINKING WATER SOURCES AROUND
BADULLA MUNICIPAL COUNCIL AREA AND DETECTION OF ANTIBIOTIC
RESISTANCE GENES**

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ABSTRACT

At present, drinking water contamination with pathogenic bacteria through waste products such as human and animal feces has become a major issue in the world. *Escherichia coli* (*E. coli*) bacterial species plays a key role as a fecal contamination indicator, which has both harmful and harmless acts towards human. Harmless strains produce vitamin K2 inside the gut, while harmful strains cause diarrhea and even Uterine Tract Infections (UTI). More importantly, some of the strains develop resistance for antibiotics due to prolonged exposure. Specially, gut-residing *E. coli* strains. Then treatment with common antibiotics becomes hopeless and that has threatened health care globally. It is possible for other pathogenic bacteria including *E. coli* species to acquire these antibiotic resistance genes through horizontal gene transfer. Currently, non-clinical environments such as common aquatic resources have been recognized as a significant factor in dissemination of antibiotic resistance genes. In this study, water samples were collected from the water sources around Badulla Municipal Council, UVA province, Sri Lanka. At the first stage, both biochemical and molecular analysis were performed to detect *E. coli*. Followed by, Antibiotic Susceptibility Testing (ABST) for the most probable *E. coli* samples to observe their antibiotic resistance against Tetracycline, Sulfonamide and Gentamicin. The tetracycline resistance strains were tested for the presence of Tet A and Tet C resistance genes by Polymerase Chain Reaction (PCR). Tet A gene was detected in five drinking water samples including common wells and a domestic tank.

Keywords: Drinking water, *E. coli*, Antibiotic Susceptibility Testing, Antibiotic resistance, Polymerase Chain Reaction (PCR), Tet A gene

A NOVEL BLOOD-FEEDING DEVICE IN REARING OF Aedes aegypti FOR TRANSGENIC STUDIES IN SRI LANKA

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ABSTRACT

Dengue is a mosquito-borne viral disease mainly transmitted by *Aedes aegypti*. In the absence of effective drugs or vaccines, the disease control is primarily reliant on mosquito vector control strategies. With the failure of conventional vector control strategies, new strategies involving transgenic mosquitoes are being developed, which specifically require maintenance of mosquito colonies in the laboratories. Blood feeding of mosquitoes is a fundamental part of routine colony maintenance of *Ae. aegypti* since they require blood meal for their egg maturity. Here we report the development of a simplified and cost-effective artificial membrane-feeding device out of affordable materials of disposable plastic cup, Styrofoam and parafilm to facilitate the *Ae. aegypti* artificial blood feeding. The effectiveness of the device was compared with that of a commercially available blood feeding device (Hemotek) by assessing the blood feeding rate, fecundity and hatchability. Similar blood feeding rates were found on both commercially available device and new blood feeding device (94.33 ± 1.59 and 91.83 ± 1.59 respectively; $p > 0.05$) as well as comparable fecundity between two methods (22.03 ± 1.48 and 20.79 ± 0.71 respectively; $p > 0.05$). Furthermore, there was no statistically significant difference in hatchability between the two methods (93.82 ± 1.43 and 91.99 ± 1.36 respectively; $p > 0.05$). The results indicate this simple and efficient blood feeding device can be used for routine colonization of laboratory strains of *Ae. aegypti*.

Keywords: Dengue, *Aedes aegypti*, Mosquito, Blood-feeding

A REVIEW ON THE POTENTIAL OF HERBAL TEA IN THE MANAGEMENT OF TYPE 2 DIABETES MELLITUS

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ABSTRACT

Diabetes is a metabolic disease that can cause significant morbidity, mortality, and long-term consequences. Available treatment options, which are mostly based on treating hyperglycemia with insulin and other pharmacological agents, are ineffective and can even cause undesired side effects. According to scientific research, bioactive substances from teas and other plant-based foods, which are proven sources of natural antioxidants, may be an appealing option for preferentially treating and managing type 2 diabetes mellitus, and so have major therapeutic implications. The main objective of this review is to investigate the potential of herbal tea in the management of type 2 diabetes mellitus. Sub objective of the study is to find out how effective different types of herbal tea are in the management of type 2 diabetes mellitus. This systematic review aimed to evaluate evidence using keyword search in recognized electronic databases from 2012–2021. Studies were selected for relevance, then reviewed with extracted data for outcome measures. A total of one hundred and thirty-one publications were identified and only eleven studies met the inclusion criteria. All the studies with clinical studies and the participation of type 2 diabetic patients and type 2 diabetic animal models were included. The systematic review will confirm the potential of herbal tea in the management of type 2 diabetes mellitus

Keywords: Herbal Tea, Type 2 Diabetes, Management

OILS USED FOR TREATMENT IN SRI LANKAN TRADITIONAL TAMIL MEDICINE – A REVIEW

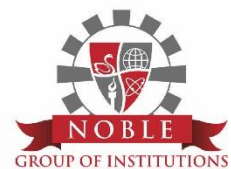
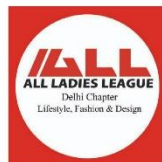
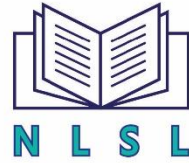
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Sri Lanka*

ABSTRACT

Oils are used for food preparation and pharmaceutical manufacturing. Different oil formulations are frequently used in traditional medical systems, particularly Tamil medicine, to treat diseases. Sri Lanka has a great assortment of Tamil medical literature. Hence, our review aimed to study the types of oils utilized in Sri Lankan traditional Tamil medical literature (STTML) to prepare the therapeutic oils with treatments. Combining the terms traditional medicine, Siddha medicine, and oils were used to conduct a literature survey utilizing the electronic databases. In addition, data was gathered from printed STTML. Nine STTML and 20 journals were selected. The literature documents 423 types of therapeutic oil for 57 types of diseases. Eleven types of oil are used to prepare these 423 types of therapeutic oils. Of these 423 oils, adult and pediatric diseases were treated with 389 and 34 oils, respectively. Gingelly oil was used to prepare 72.58% (307 types) of therapeutic oils, followed by neem (26.48%) and castor oil (24.59%). Mustard, Pongamia, Tamanu oil, etc., were used to prepare < 7%. The majority (23.88%) of these oils were used to treat otolaryngology, brain, and dental diseases ($p < 0.001$), followed by rheumatic diseases (21.04%) and skin diseases (20.09%). In addition, the gingelly oil is mainly used to prepare therapeutic oils for internal (10.40%), external (47.51%), or combined (19.95%) treatments, followed by castor (8.27%) and neem oil (16.78%), which are used internally and externally respectively. Gingelly oil is commonly used in the Sri Lankan traditional medical system to prepare and treat diseases for all ages.

Key words: Oils, Sri Lanka, Traditional medicine

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