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Antimicrobial effect of the extracts of different parts of *Annona squamosa*(custard apple) and *Punica granatum* (pomegranate) on *Escherichia coli*

Sabrina Jathanha and Sajna Abraham

Abstract

From time immemorial, plants have been a valuable source of natural products for promoting health and preventing diseases. In the recent years there has been an upsurge in interest to search for natural therapies especially in countries where traditional remedies are prevalent. A case in point is the intensive studies being done on *Punica granatum*, now being touted as a panacea fruit. Pomegranate is said not only to lower cholesterol oxidation but also minimizes the retention and aggregation of LDL, reduces systolic pressure within a month. Pomegranate is also known to exhibit the strongest antioxidant activities of any food; it may also prove to be promising in the treatment and prevention of breast and prostate cancer. The pomegranate juice is rich in tannins, phenolic acids, and polyphenols and flavonoids. Studies have also shown that *Annona squamosa* (custard apple) has a good number of medicinal uses. Fresh fruits are used to treat skin sores. Infusion of the leaves is used to alleviate pulmonary and eye complaints. Investigations have also revealed antitumor and antibiotic activities. The trunk bark contains alkaloids such as anonaine, tannins and saponins. *Punica granatum* has received much attention from the scientific community, but *Annona squamosa* has not been investigated thoroughly. A comparative study of the antimicrobial effect of extracts of different parts of *Annona squamosa* (custard apple) and *Punica granatum* (pomegranate) was done on the microorganism *Escherichiacoli*. Antibacterial effect was observed in the case of the pith extract of pomegranate.

Key words: *Escherichia coli*, *Annona squamosa*, *Punica granatum*, Antimicrobials, Plant extract.

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In vitro* study on the antimicrobial property of honey and the extracts of different parts *Punica granatum* (pomegranate) on *Staphylococcus aureus

Leena Alexander

Abstract

Honey is enjoying a renaissance in medical and prophylactic treatment of a number of diseases because it offers broad-spectrum antimicrobial property to bacteria like *Staphylococcus*, *Pseudomonas*, *Streptococcus*, and *E. coli* that are opportunistic microflora inhabiting the skin, digestive tract and respiratory tract of humans, while *Salmonella typhi* is a pathogen causing enteric fever or typhoid. These opportunistic bacteria cause a number of diseases like pharyngitis, laryngitis, pneumonia, gastritis, rheumatic arthritis and other related diseases in immune compromised individuals.

The emergence of antibiotic resistant bacteria has made it increasingly difficult to treat these microbes. Honey is increasingly being used in the management of infected wounds and other diseases where conventional pharmaceutical products are failing. The fruit, leaf and bark of the *Punica granatum* is known to exhibit interesting pharmacological and toxicological activities and they have been extensively used as a traditional remedy against acidosis, dysentery, microbial infections, diarrhoea, helminth infection, hemorrhage and respiratory pathologies. A comparative study of the antimicrobial property of honey and different parts of *Punica granatum* has been undertaken to re-evaluate their antimicrobial property against *Staphylococcus aureus* and also to analyze the phytochemicals present in honey.

Key words: honey, *Staphylococcus aureus*, *Punica granatum*, phytochemicals, antimicrobial.

Salivary Glucose as a Diagnostic Marker and Associated Changes in SOD and Total AOA in Type 2 Diabetic Patients

Sayeeda Mussavira, Bindhu O.S and Mala Dharmalingam

Abstract

Diabetes mellitus (DM), an endocrine metabolic disorder of multiple etiologies, has become a worldwide epidemic affecting both developing and developed countries. High level of free radicals and simultaneous decline of antioxidant defence mechanisms contributes to complications in DM including worsening of insulin resistance. Recent research points to the need and importance of monitoring disease specific markers in saliva as an alternative diagnostic medium. Saliva has been shown to reflect variations occurring in blood component levels in diabetes. Exploring saliva for oxidative stress markers, which can reflect the redox status of the body, may have clinical relevance in DM, and along with glucose, can lead to better disease management. In the present work a total of 93 subjects (53 diabetic and 40 healthy controls) were selected. The parameters studied include salivary enzyme super oxide dismutase (SOD) and total antioxidant status (AOA). Analyses were based on spectrophotometric/colorimetric procedures. AOA showed a marked reduction. However, SOD showed only a marginal increase. Spearman correlation analyses showed significant ($p < 0.001$) positive association of salivary glucose with blood glucose whereas, its associations with AOA was negative. The study concludes that there exists a significant variation with salivary properties in terms of its antioxidant capacity and other stress-associated parameters. The correlations observed suggest the association of these alterations with glycaemic status. Hence, the study stresses on the importance of saliva to be a good medium for diagnosis and management of diabetes.

Key words: Diabetes mellitus, saliva, SOD, AOA

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'Handcuffed to history'-rendering of historicity and questions of identity in *Midnight's Children* and *The Shadow Lines*

V. Shantha and Saima Ali

Abstract

The discipline of historiography was problematized under the influence of postmodernist thought leading to questioning of the objectivity of the discipline. A more nuanced understanding of the paradigm brought it closer to fiction writing. Most importantly the need to revisit the past in such postcolonial novels as *Midnight's Children* and *The Shadow Lines* is linked to the fact that history is intimately connected to identity. The existential quest for identity led these writers to the exploration of their 'roots' either to explode the notion of the singularity of history or undermine its importance by prioritizing human will and action. The 'burden' of the Diasporic condition vis-à-vis the past is another angle explored by these writers. Therefore the rendering of historicity in these works is directly connected to the writers' self-perception.

History is contingent on memory which is unreliable as well as selective. How much and to what extent of the past is recalled by the writer is ideologically driven. In this sense both history and fiction are impacted and even arguably formulated to a great extent by the politics of identity. A thematic study of most diaspora writing would reveal concurrent ideas like those of the notion of nationhood; questions of national identity; sense of alienation; nostalgia for the 'homeland'; multiple identities; reconstruction of narratives through fragmented memory; cosmopolitanism etc. Subverting the paradigm of the conventional historical novel rooted in the History of official records underscores the validity of the multiplicity of narratives, while valorizing the 'unrooted' diaspora condition.

Key words: historicity, identity, diaspora, nation, memory.

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English as an ever Changing Phenomenon in the Multilingual Post Independence India

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Abstract

The contemporary world has understandably been shrunk into one global unit; brought together by several factors such as science, technology, politics, culture, economy and languages. The notion that sound education needs to be initiated by enabling students to achieve mastery over their mother tongue therefore needs to be coupled with promotion of English as a prominent language. Hence the challenge of curriculum design and teaching lies in consolidation of English language skills to make the English text appropriate enough to the current trends of Post Independent India.

The authors here attempt to study the existing situation in the educational quarters where we witness heterogeneity of students who would have had English as either the first language or the second language. The largeness of the classes poses a significant challenge to the teacher where the demands are conspicuously varied. Therefore, the paper here focuses on the situation of the English text and its changing role. In addition, the paper attempts to focus on pedagogical strategies to be adapted to enable students to possess adequate command over the English language with significant emphasis laid on honing the linguistic ability of students in English.

Key words: Kannada, English, Heterogeneous learners, Great Books, Common Text.

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Malayali women: Education and the development of the self in the early 20th century

Teena Antony

Abstract

This work is part of a larger project to capture and delineate the cultural history of women from Kerala in the early twentieth century. This article traces the development of the self of Malayali women in the early twentieth century through a reading of two autobiographies - OrmayilNinnu (1964) and Aatmakatha (2010). It also tries to define what education (formal and informal) meant to women during the period. It postulates that education played an important part in the process of negotiating the modernity/tradition, male/female dichotomy, religion/science dichotomies in the lives of women.

Key words: women, Kerala, education, auto-biography, caste, modernity.

Business Incubation and Incubatees at AWAKE

Genevieve Manjunath and Julie Katak Pathak

Abstract

Business incubation catalyzes the process of starting and growing companies. From the study conducted by the researchers it was found that a proven model can provide entrepreneurs with expertise, networks and tools they need to make their venture successful. Incubation programs create economies of scale, commercialize technologies, create jobs and build wealth.

In AWAKE the business incubator centre is designed to nurture young businesses.

The findings of the study reveal that the services and benefits of business incubators are wide, so are the missions or objectives.

From the incubatees point of view the functional interaction of the product development center and the pilot-cum-demonstration-production facility will enable the achievement of all or most of their objectives.

AWAKE has set up a Business Incubator, the first of its kind in Asia , to develop enterprises for women in Food Processing. Several women started their activities with a low investment utilizing the infrastructure and services available under one roof, such as support in production, usage of machinery, technical experts, consultants and networking arrangement.

The first person to incubate out of AWAKE 's incubator and become a great success is Ms Indira Gowda(M/S INDIRA FOODS AND BEVERAGE-1992-93)

THE CONCEPT AND AWARENESS OF BUSINESS INCUBATORS IS SLOWLY INCREASING IN INDIA

Key words: women entrepreneurs, food industry, business incubation, incubatees, mentoring, entrepreneurial skills, incubation services, training.

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Modeling PPP Project Performance Using Earned Schedule Method

K.C. Iyer and Mohammed Sagheer

Abstract

This paper describes a stochastic method for forecasting the final cost and budget of a construction project built on a Public-Private Partnership (PPP) format. While Critical Path Method (CPM) and Programme Evaluation and Review Technique (PERT) have been commonly used in project management, probabilistic forecasting technique using Earned Value Method (EVM), originally developed for cost management and later extended to forecast project duration has also gained importance in the recent past. EVM measures schedule performance not in units of time, but in terms of cost. Besides, EVM gives unreliable estimates of Schedule Performance Index (SPI) towards the later stages of the project. To resolve this problem, the Earned Schedule method for the estimation of indices is used in the present study. Schedule Index estimation by this method in the present study has been found to be appropriate and reliable when evaluated using Weibull analysis. The forecasts of activity duration and costs are used in the simulation of project networks to determine the project duration and cost at completion.

Key words: Project management, earned value, earned schedule, possibility distribution, simulation, Weibull analysis.

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