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**Nutrition
Informatics**

SMAARTHub for Informatics enabled Nutrition Education (**SHINE™**)
Research, Innovate, Policy, Practice, Entrepreneurship

Nutrition Informatics Newsletter

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Inaugural Message

Welcome to the inaugural nutrition informatics newsletter SHINE™ (January 2022) of the Foundation of Healthcare Technologies Society. This newsletter aims to bring together the advancements in the field of Nutrition Informatics Research, Innovation, Policy, Practice, and Entrepreneurship. The newsletter will also provide recent updates about the various national and International nutrition informatics projects, and highlight some of the major nutritional challenges that can potentially be solved through various nutrition informatics interventions using data, information, and knowledge frameworks.

We also highlight some of the student successes in the field of nutrition informatics research and practice. In addition, we bring together stories of the students' learning experience with the real nutrition informatics projects addressing the real public health challenges.

I encourage you to make a meaningful contribution to this newsletter by sharing data-driven, evidence-based ideas, innovations, and interventions that aim to address nutritional challenges impacting health among individuals, families, and the communities across diverse Indian settings.

With much appreciation,



Ashish Joshi

Ashish Joshi PhD, MBBS, MPH

About

SHINE™ is a global platform for the field of nutrition informatics research, innovation, policy, practice and entrepreneurship.

Why Nutrition Informatics?



- Nutrition Informatics (NI) describes the intersection of nutrition, information, and technology, and it underlies all areas of dietetics practice.
- Focus on the development of standards, processes, and technologies for providing nutrition care.
- Inform data-driven, evidence-based, human-centered design, development, implementation, and evaluation of nutrition informatics interventions, programs, and policies to enhance the good health and well-being of individuals, their families, and the communities they live in.

Recent Advancements In The NI Field

The research paper entitled Need and Importance of Nutrition Informatics in India: A Perspective was published in MDPI Journal – Nutrients. Nutrition informatics (NI) is the effective retrieval, organization, storage, and optimum use of information, data, and knowledge for food-and-nutrition-related problem-solving and decision-making. There is a growing opportunity to facilitate technology-enabled behavioral change interventions to support NI research and practice. This paper highlights the changing landscape of food and nutrition practices in India to prepare a NI workforce that could provide some valuable tools to address the double burden of nutrition. Given the current progress in developing platforms and informatics infrastructure, India could serve as an example to other countries to promote NI to support achieving SDGs and other public health initiatives. [Read more ...](#)

Joshi, A., Gaba, A., Thakur, S., & Grover, A. (2021). Need and Importance of Nutrition Informatics in India: A Perspective. *Nutrients*, 13(6), 1836.

Launch of First Certificate Program in Health And Nutrition Informatics

16 WEEKS Program Duration	240 HOURS Total teaching hours	16 HOURS Online live lectures	32 HOURS Discussion forum / mentoring
40 HOURS E-tutorial	40 HOURS E-content	40 HOURS Self-study hours	8 CREDITS Total number of credits

Learning objectives

- Organize and manage health information data.
- Maintain quality, accuracy and accessibility of data.
- Ensure the security of electronic and paper filing systems.
- Use data collected to help create dietary plans for patients.
- Apply human centered approach to design culturally and contextually relevant nutrition apps supporting improvement of population health outcomes.
- Evaluate nutrition informatics interventions across diverse disease topics, diverse populations across various settings.

Joint collaborative certificate program of Foundation of Healthcare Technologies Society and St Ann's College for Women.

There is a growing opportunity to facilitate technology-enabled behavioral change interventions to support NI research and practice. The program adheres to UGC-approved guidelines and combines theoretical aspects with the presentation of practical solutions in real-world settings.

Program starts: January 24, 2022

[For more information click here](#)

Blog



A Landscape Review of Food Insecurity and Mental Health

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Introduction

Food insecurity is a complex issue and as defined by the FAO (Food and Agriculture Organization), food insecurity is “when a person lacks regular access to enough safe and nutritious food for normal growth and development and active and healthy life (1). Worldwide more than 3 billion people are food insecure with the highest concentration in Asian countries (418 million) (2). Although there is a lack of data in the Indian context, the Government of India is striving hard to reduce food insecurity among affected population groups (3). Additionally, the adverse effects of food insecurity go beyond nutrition and physical health to percolate down on mental health (4), (5). The COVID-19 pandemic further exacerbated the impact of food insecurity on the mental health of individuals (6). A recent review associated a positive relationship between FI and risk of depression and stress (5).

“Food Insecurity may be a key contributor to common mental disorders through several different mechanisms”. (7)

Food Insecurity and Mental Health Issues across Lifespan

A global analysis of 149 countries on food insecurity and mental health found that FI ranged from 18.3% in East Asia to 76.1% in Sub-Saharan Africa. It demonstrated that FI is associated with poorer mental health and specific psychosocial stressors (7). Food insecurity has been identified as a powerful stressor for families, with significant negative implications for child health and development; these include impacts on physical, social, cognitive, and behavioral development, independent of poverty (8). A study conducted on teenage girls in India found teenage girls from food-insecure households were more likely to have high levels of anxiety, depression, loss of behavioral control, and psychological distress than those living in food-secure households (9). A study conducted on 31,464 older persons 60 years and above found that food insecurity is associated with a lower level of cognition among the elderly in India (10). Likewise, another study reported middle-aged and older people experienced high psychological distress due to FI during the pandemic (11). Additionally, high levels of stress were associated with deteriorating FI among women in developing countries (12).

Addressing Food Insecurity and mental health During COVID-19 Pandemic: Indian Context

As a response to the pandemic, the Government of India announced a relief package of \$22.6 billion (Rs. 1.70 Lakh Crore) on March 26, 2020, which majorly catered to the prevalent food insecurity due to the COVID-19 pandemic (13). The public-based distribution system (PDS) provided free 5 kgs of rice/wheat along with 1 kg of pulses in three installments under the Pradhan Mantri Garib Kalyan Ann Yojana (13). This was in addition to the pre-existing entitlement of 5 kgs low-cost wheat/rice per person per month. The scheme catered to nearly 80 crore individuals accounting for two-thirds

of the population of India. Although initially targeted for 3 months only, later the Pradhan Mantri Garib Kalyan Anna Yojana was extended in a total of five phases till March 2022 (14). Additionally, the state governments also announced relief packages for the population. Considering the double burden of pandemic and food insecurity on mental health, the government launched a helpline number and strengthened the telemedicine facilities for the patients (15). Yet, a recent survey by the Indian Psychiatric Society showed a 20% increase in mental illness since the pandemic outbreak (16). Moving forward the government must have a plan with focus on food insecurity and its multidimensional impact on the millions of people in the country.

Way Forward

Long-term and multifaceted interventions studies are needed to positively impact and prevent food insecurity. Moreover, there is a need to understand the complex relationship between well-being and food insecurity. There is the paucity of evidence-based tailored interventions that address mental health, well-being, and food insecurity. Funding should be available for advocacy and awareness programs linking food insecurity and poor mental health outcomes. Funding support would help in developing robust monitoring systems and strengthening the research to more comprehensively understand the relation between Food Insecurity and Mental Health, Moreover, it may help to design evidence-based interventions that can effectively address insecurity and psychological distress in order to improve nutritional and psychological well-being simultaneously.

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Spotlight

Ph.D. Scholar



Bhavya Malhotra

WHO explains Mental health as a condition of well-being in which the person understands their abilities, can manage beside the everyday pressures of life, work effectively and fruitfully, and contribute to the community.

Young people constitute approximately one-quarter of the global population, but one in three people is a young person in South Asia and Africa. Mental health problem ranges from 10% to 20% worldwide among children and young people.

The title of my doctoral research is an Experimental study design, develop and implement a youth well-being index using an informatics decision aid platform. It will be done using a mixed-method approach, and students will be enrolled from Uttar Pradesh and Uttarakhand. The intervention developed will focus on increasing engagement and which combination of technology can help young people to live a healthy lifestyle.

Nutrition Informatics Intern



Bhavya Sharma

I am Bhavya Sharma, currently pursuing M.Sc. Food & Nutrition from Lady Irwin College, Delhi University. As a student of nutrition, I came into this internship with the aim of getting relevant exposure in the field of public health and to gain professional skill set that would better equip me in my future endeavours & to make best use of this opportunity for betterment of nutritional status at the community level. My internship has been an extremely rewarding experience.

This internship with FHTS has given me a greater understanding of various avenues that I further wish to explore for bridging the gaps present between policy making and delivering. Working under the guidance of our esteemed mentors, who shared their knowledge in the Public Health & Nutrition field throughout the course of this internship is invaluable. I can surely say that I have gained immense confidence and I am pumped about entering the workforce.

Most of all, I have a deep appreciation for the enthusiastic and nurturing environment of FHTS institution and the dedication with which people are maintaining & expanding their vision.

Interested in Contributing to Nutrition Informatics, [click here.](#)