

# Perspectives in Social Work



College of Social Work (Autonomous),  
Nirmala Niketan  
Mumbai

**VISION AND MISSION**

- Contribute to building a new social order based on human dignity and social justice.
- Work with a preferential option for the vulnerable and exploited, both locally and globally.
- Build cadre of young, competent professionals having a global perspective and a strong value base of compassion, personal integrity, moderation, tolerance and self-respect.

**Perspectives in Social Work** is a professional Journal for the advancement of perspectives on social issues and social work intervention. All articles in the Journal are peer reviewed.

Materials from this Journal may be used without previous permission of the publishers provided the source is properly acknowledged.

The opinions expressed in the Journal are solely those of the contributors and do not necessarily reflect the policy or position of the College of Social Work

Perspectives in Social Work is published thrice a year by the College of Social Work, (Autonomous), Nirmala Niketan, 38, New Marine Lines, Mumbai 400 020

Perspectives in Social Work journal of the College of Social Work (Autonomous) has been approved by the University Grant Commission <http://ugccare.unipune.ac.in> Journal under Social Sciences

**Annual subscription cost: (Payable by DD/MO in favor of *Perspectives in Social Work*)**

**Note: The revised Annual Subscription rates from April 2023 issue would be as follows:**

| Category                      | 1 Year | 2 Year | 3 Year |
|-------------------------------|--------|--------|--------|
| *Research Scholars & Students | 300    | 500    |        |
| Individuals & Professionals   | 700    | 1200   | 1800   |
| Institutions                  | 1200   | 2200   | 3400   |

**Disclaimer:**

The opinions expressed in the Journal are solely those of the contributors and do not necessarily reflect the policy or position of the College of Social Work.

**Chief Editors**

**Dr. Lidwin Dias**, Principal, College of Social Work (Autonomous), Nirmala Niketan, Mumbai

Contact details: [cswnnprincipal@gmail.com](mailto:cswnnprincipal@gmail.com)/ Tel: 022-2209- 3778

**Dr. Geeta Balakrishnan**, Former Principal, College of Social Work (Autonomous), Nirmala Niketan, Mumbai Contact details: [geeta.balakrishnan@gmail.com](mailto:geeta.balakrishnan@gmail.com)/ Tel: 022-2200-2615

**Editorial Board Members**

**Dr. Yamini Suvarna**, Independent Consultant, (Research), Mumbai.

**Dr. Joseph M.T**, Assistant Professor, Department of Sociology, University of Mumbai.

**Dr. Anita H. Panot**, Associate Professor (Rtrd), College of Social Work, (Empowered Autonomous), Nirmala Niketan, Mumbai.

**Dr. Roopa Rao**, Associate Professor, Department of Community Resource Management, College of Home Science Nirmala Niketan, (Affiliated to the University of Mumbai), Mumbai

**Dr. Sonia H Rodrigues**, Associate Professor, College of Social Work, (Empowered Autonomous), Nirmala Niketan, Mumbai.

**Dr. Renu A Shah**, Assistant Professor, College of Social Work, (Empowered Autonomous), Nirmala Niketan, Mumbai.

**Dr. Kalyani Talvelkar**, Assistant Professor, College of Social Work, (Empowered Autonomous), Nirmala Niketan, Mumbai.

**Dr. Ronald Yesudhas**, Assistant Professor, College of Social Work, (Empowered Autonomous), Nirmala Niketan, Mumbai.

**Editorial Office Team**

**Mr. Anshit Baxi**, Assistant Professor, Coordinator, Research and Development Cell, College of Social Work, (Empowered Autonomous), Nirmala Niketan, Mumbai.

**Mr. Mukund Modak** (DTP)



## **CAUTION**

### **Beware of "Predatory/ Fake/ Cloning Journals"**

**It has come to our notice that some agencies are cloning our journal, i.e *Perspectives in Social Work*.** Strict legal actions will be taken against any such Predatory/ Fake/ Cloning publishers. Perspectives in Social Work is a double blind peer review journal which follows norms of the Committee on Publication Ethics (COPE) which promotes integrity in academic publishing. Prospective authors & subscribers are informed that we **DON'T CHARGE** authors any money and we are **NOT A PAID JOURNAL**. This is to inform that we are not responsible if you publish your manuscript through Predatory/ Fake/ Cloning publishers by paying money.

**Kindly follow the protocol below to do the due diligence:**

- 1. Our journal details are found in [www.cswnn.edu.in](http://www.cswnn.edu.in) under the publication tab**
  2. Manuscripts along with the plagiarism report can be first send to [nnperspective@cswnn.edu.in](mailto:nnperspective@cswnn.edu.in)
  3. The editorial team will first check whether the article is relevant/ substantial/ suitable for our journal (15 days -30 days). Then its send to peer reviewers for review and feedback (1 month). The peer review feedback is then shared with the author. After incorporation, the article is send back again to the peer reviews to check the adherence. If satisfactory work is done, then article is scheduled for publication (it may take 6 to 9 months). There are no article processing charges for publishing your manuscript. Once published, the author gets a complimentary copy by post.
-

- 
4. Information or any updates regarding your manuscript will be conveyed through to [nnperspective@cswnn.edu.in](mailto:nnperspective@cswnn.edu.in) only
  5. We **DO NOT** publish any special issue based on conferences or seminars.
  6. We **NO NOT** issue a publication certificate. Rather a letter of acceptance is provided (on request) for those authors whose papers are scheduled for publication.
  7. For doubts/ registering complaints, please call (022) - 22075458 / 22067345 / 22002615 or write email to [nn@cswnn.edu.in](mailto:nn@cswnn.edu.in)

***Dr. Lidwin Dias and Dr. Geeta Balakrishnan***

Chief Editors,

Perspective in Social Work

College of Social Work (Autonomous)

Nirmala Niketan, 38, New Marine lines,

Churchgate, Mumbai - 400 020

---

**College of Social Work, Nirmala Niketan**

(Affiliated to the University of Mumbai)

N.A.A.C Reaccredited A

UGC approved under Social Sciences

**Perspectives in Social Work**

Vol. XL (No.2) - AUGUST-2025

ISSN 0974-5114

**Contents**

**Editorial**

1. Traditional Healers: Advertent On Intrinsic  
Knowledge Of Khasi Tribe, Meghalaya .....01  
- Onessimos Shangdiar, Dr. Noorul Ain
2. Digital Safety Program And Elderly  
Satisfaction: A Study Of Elders In Recreation  
Centres In Mumbai .....24  
- Saheli De Sarkar, Vandana Chakrabarti
3. Lifestyle Vulnerabilities: Non-Communicable  
Disease Susceptibility in Adolescent Population  
of Kamrup (Metro) District, Assam .....46  
- Dr Aakanksha Agarwala, Dr Manab Deka
4. Mindfulness-Based Social Work Intervention  
For Adolescence Social Intelligence .....63  
- Sachu M, Dr. Lizy P. J, Dr. Akhila K P
5. A Bibliometric Analysis On Community  
Participation In Public Health .....85  
- Shaista, Dr. Naved Jamal





## EDITORIAL

The field of social work is continually evolving to respond to emerging social realities, shifting demographics, and the growing need for interdisciplinary and evidence-based practice. Today, social workers are engaging with diverse concerns ranging from preserving indigenous knowledge systems and promoting digital inclusion among the elderly, to addressing adolescent health vulnerabilities and fostering socio-emotional development through innovative interventions. In this edition of *Perspectives in Social Work*, five authors present their research and insights that reflect these expanding frontiers. The articles explore the role of traditional healers in community health, the impact of digital safety programs on elderly satisfaction, lifestyle risk factors for non-communicable diseases among adolescents, mindfulness-based interventions to enhance social intelligence, and a bibliometric analysis of community participation in public health. Together, they offer valuable perspectives on how social work can remain responsive, resilient, and relevant in a rapidly changing world.

The first article by Onessimos Shangdiar and Dr. Noorul Ain titled “*Traditional Healers: Adherent on Intrinsic Knowledge of Khasi Tribe, Meghalaya*” explores the indigenous healing practices of the Khasi Tribe in Meghalaya and their role in enhancing primary healthcare. Using a mixed-methods approach with surveys of Khasi beneficiaries and case studies of traditional healers, the study highlights the healers' deep spiritual connection with nature and their holistic approach to health. It reveals that traditional healers derive knowledge from natural signs and symbols, using both spiritual rituals and herbal remedies rooted in cultural and customary practices. The study emphasizes the significant role of traditional healers in community healthcare.

The second article by Saheli De Sarkar and Dr. Vandana Chakrabarti titled “*Digital Safety Program and Elderly Satisfaction: A Study of Elders in Recreation Centres in Mumbai*”

---

---

examines elderly engagement with digital safety programs and their satisfaction with these services. Conducted as a cross-sectional study among elderly participants in Mumbai, it explores socio-demographic differences and perceived benefits of digital safety learning. The study found that many participants valued the free nature of the service, while others appreciated access to updated information. Statistical analysis revealed that perceived benefits had a significant effect on satisfaction, especially among those who gained technological knowledge. The study highlights the role of digital safety programs in promoting digital awareness among elderly people, including those with physical impairments.

The third article by Dr. Aakanksha Agarwala and Dr. Manab Deka titled "*Lifestyle Vulnerabilities: Non-Communicable Disease Susceptibility in Adolescent Population of Kamrup (Metro) District, Assam*" investigates the prevalence and clustering of behavioural and lifestyle risk factors of non-communicable diseases (NCDs) among adolescents. Based on a primary survey of school and college-going adolescents, the study used descriptive statistics and ratio analysis to identify risk factor patterns. The findings reveal that insufficient physical activity, inadequate fruit and vegetable intake, and daily junk food consumption were the most common risk factors. A considerable proportion of adolescents reported multiple risk factors, with boys showing a notable clustering of alcohol consumption and insufficient physical activity.

The fourth article by Sachu M, Dr. Lizy, and Dr. Akhila titled "*Mindfulness-Based Social Work Intervention for Adolescents' Social Intelligence*" examines the effectiveness of mindfulness practices in enhancing social intelligence among adolescent girls. The study used an intervention design where participants were randomly assigned to experimental and control groups. The experimental group participated in mindfulness-based sessions focused on mindful breathing. The intervention aimed to help adolescents develop better control over their body, mind, and emotions to strengthen social intelligence. Results showed a

---

---

marked improvement in social intelligence among the experimental group, indicating the effectiveness of mindfulness-based interventions in fostering adolescents' social and emotional development.

The fifth article by Shaista and Dr. Naved Jamal titled “*A Bibliometric Analysis on Community Participation in Public Health*” examines the evolving research landscape on community participation in public health over the past several decades. Using bibliometric methods, the study analyzed a large body of English-language articles and review papers identified through keywords such as “Community Participation,” “Community Engagement,” “Community Involvement,” and “Public Health.” VOSviewer software was used to map research themes, intellectual connections, keyword relationships, and citation patterns. The analysis found a recent year to be the most productive, with one article on community-based participatory research being the most cited. The study offers insights into research trends and thematic clusters, contributing to an understanding of current and future directions in this field.

In recent years, the landscape of social work has been shaped by shifting social realities, technological disruptions, and new understandings of human wellbeing. *Perspectives in Social Work* responds to this changing context by curating scholarship that reflects both the diversity of contemporary practice and the urgency of innovation. This edition highlights research that crosses boundaries of disciplines, geographies, and methods demonstrating how social work continually adapts to serve communities in complex and evolving environments.

***Editorial Team***

---

---

---



## TRADITIONAL HEALERS: ADVERTENT ON INTRINSIC KNOWLEDGE OF KHASI TRIBE, MEGHALAYA

Onessimos Shangdiar<sup>1</sup>, Dr. Noorul Ain<sup>2</sup>

### Abstract

The indigenous practice of healing employed by the Khasi Tribe of Meghalaya is a holistic approach that encompasses all dimensions of health, rooted in the tribe's deeply held faith and principles. This traditional practice is intricately linked to the community's profound connection with nature, as they reverence the spirits of the earth, "*ki blei, ki basa*", and the spirits of the hills and rivers, "*blei lum, blei wah*". The rationale of the study is to understand the effectiveness of traditional healers in enhancing primary healthcare and to explore the perceptions of common people regarding their role in healthcare. In line with the rationale, the researcher adopted a mixed-methods approach, utilizing closed-ended questionnaires for quantitative data and open-ended questions in interviews for qualitative data. The sample size consisted of 420 Khasi tribal beneficiaries, and five case studies were conducted on Traditional Healers.

The study reveals that traditional healers view the earth as a vast repository of knowledge, where they can glean valuable insights through the signs and symbols that manifest in nature. The indigenous healers of the Khasi Tribe have developed a sophisticated understanding of natural resources, which they harness to create medicines and prescriptions tailored to the

<sup>1</sup>Onessimos Shangdiar, PhD Scholar, Social Work Department, University of Science and Technology Meghalaya (USTM) Techno city, Kling Road, Baridua Ri-Bhoi, Meghalaya 793101

<sup>2</sup>Dr. Noorul Ain, Asst. Professor, Social Work Department, University of Science and Technology Meghalaya (USTM) Techno city, Kling Road, Baridua Ri-Bhoi, Meghalaya 793101

---

cultural, customary, and spiritual practices of their people. These healers employ a range of spiritual and mystical techniques, including prayer, sacrifice, and the invocation of magical powers, to cure ailments. In contrast, some healers rely solely on herbal remedies, which they manufacture themselves using traditional methods. A mean score of 3.77 was generated based on the efficiency of traditional healers in curing illnesses and 66.4% of the respondents acknowledged the significant role and value of the existence of traditional healers.

**Keywords:** *Khasi tribe, Traditional healers, ethnomedicine and indigenous practice.*

### **Introduction**

Human beings are accountable to the cause of many illnesses and responsible for intervening in curing those illnesses as well. Healing of illnesses is not only in the hands of professional doctors. People can also cure minor illnesses through home remedies following some traditional methods and techniques.

In this paper, we are going to study mainly the Traditional healers and the beneficiaries of the Khasi tribe. The researcher collected data from all the Khasi sub-tribes, located in a different part of Meghalaya starting from the *Bhoi* living in Ri-bhoi District, the *Lynngam* in West Khasi Hills, the *Maram* in South West Khasi Hills, the *Khynriam* and the *War* in East Khasi Hills, the *Pnar* in West Jaintia and East Jaintia Hills.

Indigenous health promotion by the Khasi traditional healers is worth acknowledging and appreciating/ They are saving many lives of people, particularly those who are living in remote areas where transportation and government health services are not available. People in the remote areas depend solely on traditional healers. A beneficiary aged 34, who delivered her baby at home with the help of a traditional healer, said ;

---

*“God is not only with professional doctors in hospitals, God is in the village as well helping the traditional healers to save life”.*

She delivered the baby without any impediment and spent Rs. 500 only as a token of gratitude to the traditional healer who usually doesn't charge any specific amount for his service. The patients give whatever they wish. In this postmodern era, people are highly aware of the help of ASHA workers who encourage women to deliver the baby in institutions or healthcare hospitals, yet some women still choose to spend money on modern medicine, travel and other expenses despite their limited finances.

It is commendable that the Government of Meghalaya acknowledges the role of Traditional healers and allows them to contribute their services in the health sector with prudence and conscientiousness.

#### **Rationale of the Research Study**

The Khasi tribe is rich in culture and practice, and it is one of the unique tribes in India that follows a matrilineal system in society. Additionally, the Khasi people are commonly known as "*Ka Ri, Tip Briew Tip Blei*" or "a region that reveres man and God." They hold firmly to their faith, values, and practices, which directly and indirectly impact their health. Traditional healing, which has been practiced for centuries, is an ancient practice among tribal communities globally, including the Khasi tribe.

This research aims to understand the role of traditional healers in the postmodern era, where science and technology are increasingly influential, and many traditional practices, including healing methods, are being impacted. Meanwhile, illnesses have become more complex due to factors such as pollution, global warming, deforestation, and the use of chemicals and pesticides in food products. This study seeks to explore the contribution of traditional healers in addressing illnesses caused by various factors affecting humanity. The efficiency or inefficiency of traditional healers can shape the perception of the Khasi tribe in

---

the current era. The research findings are described in the following sections.

### **Literature Review**

According to UN 2016, there are around 370 million tribal population living in 90 Countries (Oppong et al., 2020). Tribal people are vulnerable in health due to the lack of education, low-level income, lack of hospitals and health care centers, less attention from the State and Federal government, encountering racial and other discriminatory practices in health care of tribals. Traditional healers play a very important role in facilitating tribal patients facing various challenges to access health care. According to Article 24 of the UN Convention on the Rights of Indigenous Communities;

- 1) Indigenous people have the right to access traditional medicines and maintain their indigenous health practices, conserving their medicinal plants, minerals and animals. They have the right to access social and health services without any discrimination.
- 2) Indigenous individuals have an equal right to enjoy the highest standard of mental and physical health. States should ensure to take the necessary steps to achieve progressive and full implementation of their rights (Oppong et al., 2020).

The World Health Organization, 2000 defined a Traditional Healer as “*a person who is recognized by the community where he or she lives as someone competent to provide health care by using plant, animal and mineral substances and other methods based on social, cultural and religious practices related to indigenous knowledge and belief systems*” (Gallaher et al., 2020).

The Khasi Tribe of Meghalaya, both Male and Female from different denominations of the Christian community and Indigenous religion (*Niam Khasi, Niam tre*) are traditional healers. They believe that it is God's gift to be a healer '*ka sap ba ai kyrpang u Blei*', They have inherited their knowledge from their

---

ancestors and they keep upgrading themselves through experiences and training"(Albert et al., 2023).

The Ministry of Tribal Affairs, Government of India, is supporting traditional health practitioners and enhancing primary health care in the State. The training and capacity-building program is conducted in collaboration with various institutes of the State like NEIAH, AYUSH, Martin Luther Christian University, Directorate of Health Services Shillong and the Government of Meghalaya as a whole (*Support to Traditional Health Practitioners .n.d.*).

Traditional healers are playing a vital role in curing various types of illnesses, including mental health. In developing countries, some people **believe** the causation of mental illness relates **to** spiritual and religious models. Thus, traditional healers make use of knowledge, beliefs, cultures, and indigenous practices to cure **mental** illness (Nortje et al., 2016). They attribute their expertise to spiritual, psychosocial and physical factors such as the spirits that live in sacred groves, rivers and mountains (Shange & Ross, 2022). Some findings mention that mental illness can be addressed by traditional healers and biomedical practitioners. Patients can benefit from both practices with the willingness to work together (Green & Colucci, 2020).

Traditional healing is centuries old, yet many official healthcare providers neglect to recognize its value. Traditional healing encompasses the holistic aspects of life; it correlates with various dimensions of health and reflects the definition given by WHO, which emphasizes “physical, mental and social-wellbeing not merely the absence of disease or infirmity”(Mack, 2024). Herbal medicine is the major factor used by traditional healers to cure illnesses. It has been postulated and verified through empirical observation and **trial** experiments since ancient time for safety and security(Karunamoorthi et al., 2013).

---

### **Objectives of the Study**

1. To study the role of traditional healers.
2. To comprehend people's perception on the service of traditional healers.

### **Methodology**

**Mixed Method:** The study adopted both qualitative and quantitative methods. The researcher conducted case studies on traditional healers. To understand the effectiveness of their practice, feedback from beneficiaries in the form of quantitative data was collected.

**Sampling:** Purposive and snowball sampling was used. The researcher interviewed only the population who was engaged in ethno medicine and believed in traditional healers. To identify the sample, the researcher used the snowball technique. The total sample size is 420, determined using the method of Krejcie and Morgan.

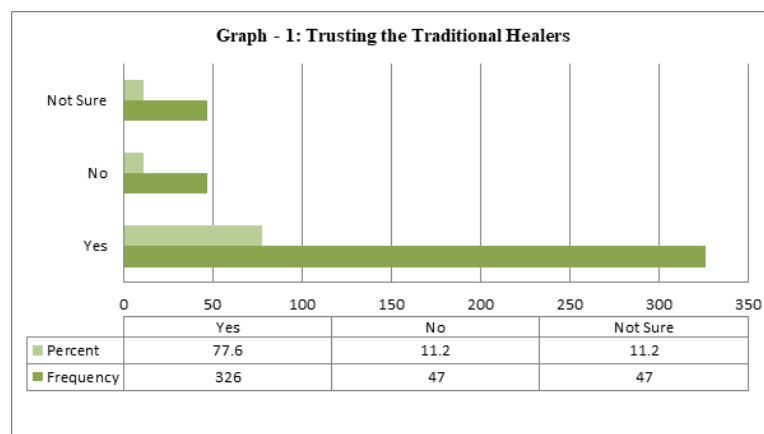
**Tools of Data Collection:** Primary and secondary methods of data collection were used. The tools of data collection included close-ended questionnaires and semi-structured interviews. Data was collected from traditional healers and beneficiaries. Data collection was conducted from November 2023 to April 2024. The researcher ensured ethical considerations, where permission was primarily sought from the respondents before data collection. The respondents were very open and shared their information freely.

**Results:** A traditional healer is a person who acquires certain knowledge to cure illness through indigenous practices or using traditional methods. To be a traditional healer, a person does not require a degree certificate in health academia or advance in using machines and high technology. Traditional healing is informal practices of an individual, mostly based on their gift and talent, experience and practice. It is mostly practiced in tribal areas since ancient times. Knowledge is inherited and passed down from generation to generation. It is an asset where the practitioners can

earn their livelihood and save the lives of those who are sick. To understand the role of traditional healers in the Khasi tribe, the researcher is elucidating the data through the help of SPSS analysis.

### ***Trusting the Traditional Healers***

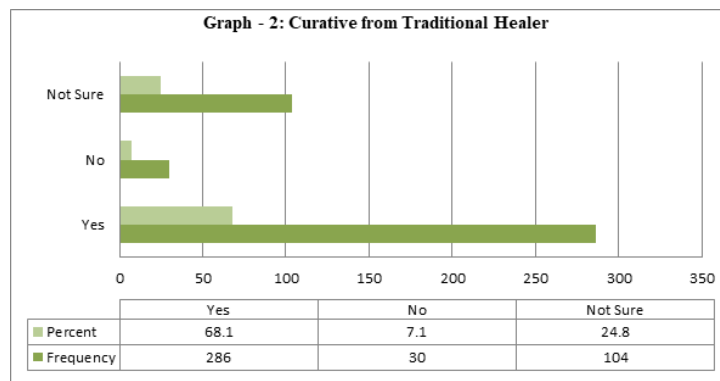
The graph below shows the data responses of the beneficiaries who belong to Khasi tribe regarding their trust in traditional healers;



Graph 1 shows that 77.6% of the Khasi tribal respondents who believe and trust in traditional healers not only hold this belief but also take medicine in accordance with their trust. Out of 420 respondents, only 11.2% have never taken medicine or believed in traditional healers, while another 11.2% are unsure or have forgotten whether they have taken medicine from traditional healers.

### ***Curative from Traditional Healer:***

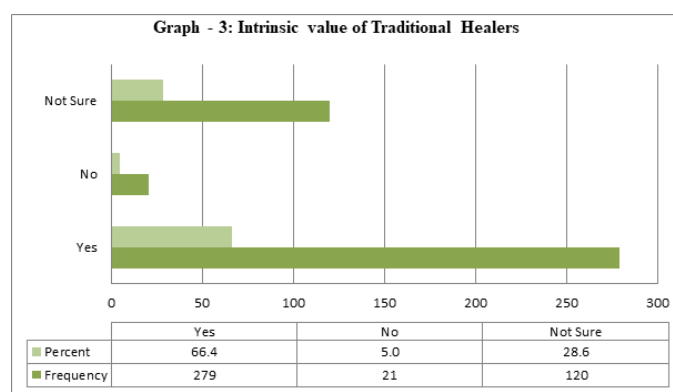
Since trust and belief alone are not enough, the researcher collected data on the impact of traditional healing to find out the result of the cure experienced by those who took medicine from traditional healers.



Graph 2 shows that 68.1% of respondents reported being cured, while 24.8% are unsure whether their cure was due to traditional healers or professional doctors, as they took both herbal and modern medicine. The result is positive, as the majority of respondents attributed their cure to traditional healers.

### ***Intrinsic Value of Traditional Healers***

In the modern era, people perceive traditional healers differently. Some look down on their qualifications and indigenous practices, viewing them as less advanced compared to modern medical practitioners. As a result, traditional healers are often nicknamed 'doctor jakoit' in the local language, which literally means 'frog's doctor' or 'quack'. The researcher collected data on the perceptions of the Khasi people towards traditional healers, which is presented in the graph below;

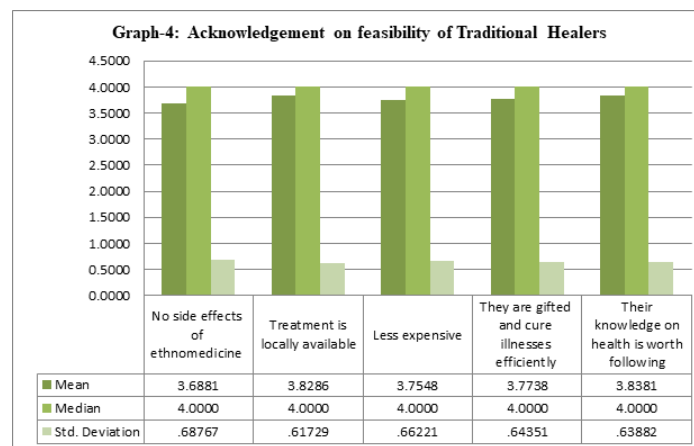




Graph 3 presents the data based on the results of respondents who took medicine from traditional healers and those who were cured by them. The researcher received feedback from the respondents, where 66.4% acknowledged the significant role and value of traditional healers, 28.6% were unsure about their intrinsic value, and 5% disagreed on their importance.

#### ***Acknowledgement on Feasibility of Traditional Healers***

Data was collected from beneficiaries regarding the side effects of ethnomedicine, its availability and cost, and the potentialities and knowledge of traditional healers. The graph below presents the data analyzed in frequency format.

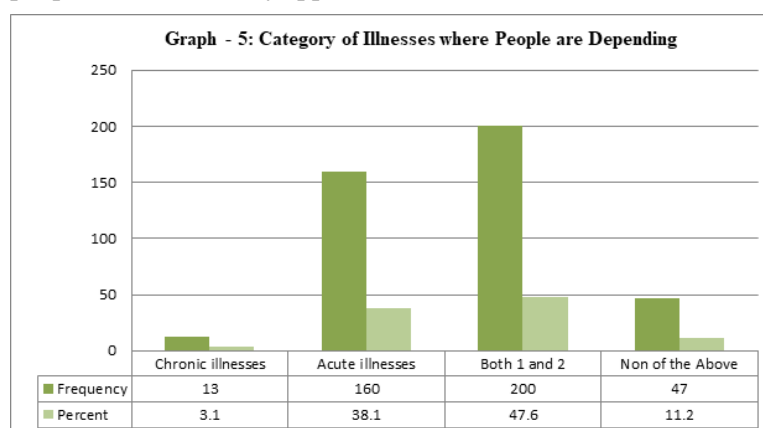


Graph 4 presents the average of the variables, and a slight difference was observed between the values. The minimum average value was 3.68, where beneficiaries acknowledged the side effects of ethnomedicine. Based on expenditure, the average was 3.75, indicating a positive acknowledgment that traditional healing is not expensive. The majority of beneficiaries also believe that traditional healers are gifted and can cure various illnesses efficiently, with an average of 3.77. They also acknowledged that the treatment is locally available, with an average of 3.82. The highest mean value among the variables was 3.83, reflecting the beneficiaries' willingness to follow and practice the health promotion lessons given by traditional healers.

---

### ***Category of Illnesses where People are Depending***

People with various illnesses turn to traditional healers for treatment, as they are known to cure certain ailments. It is a fact that traditional healers do not have the same capabilities as modern medical practitioners; however, they possess their own unique potential, special knowledge, and experience in treating specific types of illnesses. Some specialize in bone-related issues, while others focus on skin diseases, gastric problems, and so on. The researcher collected data on various categories of illnesses for which patients seek treatment from traditional healers. The graph below shows the average data on the types of illnesses for which people most commonly approach traditional healers for;



Graph 5 presents the dependency of people on traditional healers for treatment of various types of illnesses. It is shown that 47.6% of the people used to take medicine from traditional healers for acute and chronic illnesses, 38.1% took medicine from traditional healers only for minor illnesses, and 11.2% never took medicine from traditional healers for any sort of illness (as also shown in Graph 1). Only 3.1% turned to traditional healers for chronic illnesses, often due to financial constraints or unsuccessful treatment in hospitals. For instance, a notable case in Ri-Bhoi district involved a child who was rejected by several hospitals due to a complicated condition where the child was born without skin covering the stomach. According to a 2007 article in the local

---

newspaper Nongsain Hima, the child was cured by traditional healer Bah F. Rynjah after unsuccessful treatment by professional doctors in a hospital(Hima, 2007).

### **Case Study**

The researcher conducted a case study to understand the pivotal role of traditional healers in promoting healthcare services. Specifically, the study aimed to explore their learning processes and the challenges they encounter as practitioners.

#### **Case Study I**

**B. Nongthliew** was born in 1983 and got married when he was 19 years old, He learned to give medicine from his father who taught this to four of his children. His father believes that treating patients is a source of livelihood where they can work at the same time to save people's lives. His father believes that this precious practice should not stop but continued from generation to generation. However, B. Nongthliew regretted that he could not remember everything that had been taught by his father, especially the types of medicinal plants that were very impactful and efficient in treating illnesses. He said that the main reason was due to his laziness. His father had collected lots of medicinal plants and stored them at home for a year or two but his father passed away and B. Nongthliew did not update himself. He said that;

*“I was so greedy accumulating wealth instead of treasuring knowledge and information”.*

The medicine that he is using now is mostly purchased from the ones who are cultivating, He also cultivates some medicinal plants that he collects himself from the forest including NEHU Shillong Campus area. As a traditional healer and believer in Christianity, he serves the patients as they deserve and is very careful in making medicine as there are also poisonous plants. His father taught him not to put himself in shame or disgrace the family by pretending to be smart and prescribing the wrong medicine; because once the patients lose trust they will never go back to take medicine/ On the other hand it puts the patient's life in danger (B. Nongthliew, 2024).

---

### ***Outcome of Case Study I***

Case study I explores the value of primordial knowledge as a golden pathway to follow without hesitation because once it is gone it will never come back, it will be buried along with the corpse. The case study is also raising ethical concerns about treating patients responsibly and spreading indigenous knowledge far and wide.

### **Case Study II**

**G. Marbaniang** was born in 1961 and started giving medicine in 1976. His father was a traditional healer who taught him how to treat the patients. Gradually he improved himself and learnt through his experiences. The illnesses he used to treat are body aches, snake bites, gastric problems, skin disease and food poisoning. He treats patients in 3 locations, Nongshken, Umniuh tmar and Pynursla. He cultivates medicinal plants in his farm and collects wild medicinal plants from the forest. He said that medicinal plants are getting fewer day by day and it is difficult to get them, especially in the winter season. He shared his experience about witchcraft (Nongshohnoh) which he witnessed with his own eyes how they offered sacrifices and cursed people to fall sick;

*“When I was 10 years old, my father took me to his friend's house at Nohwet village near Pynursla, where the family was well known to be practicing witchcraft. During the night I fell asleep, and they put me in another room. The elders sat in the next room drinking rice beer, later on they took the hair of a person whom they cut silently during the day. They put the hair in a plate along with a grain of raw rice, I could not sleep that night, I peeped from the other room and saw the witchcraft doing their services and my father was completely drunk, sleeping on the floor. While offering sacrifices the hair and grain of rice were jumping up and down on a plate, slowly turning into small human beings where they cut the hair. However, since my father and I were not a member of witchcraft, the 'thlen' or devil was not happy and the sacrifice was not successful. The victim whose hair was cut did not fall sick nor did he die since they could not curse that night” (G. Marbaniang, 2024).*

---

### **Outcome of Case Study II**

Case Study II suggested the up-gradation and multiplication of knowledge by the healer apart from what he received from his father. It also talked about witchcraft which is one of the indigenous practices of the Khasis that put the lives of people in danger.

### **Case Study III**

**A. Palei** is 55 years old and belongs to Wahiajer Village West Jaintia Hills District. She has 26 years of experience as a traditional healer specializing in massage therapy. She has cured many sick people suffering from sinus problems, tissue and joint problems, body pain, ear problems and other types of body aches. Initially, she didn't know that she could massage and treat patients until she got sick and bedridden. While she lay in bed she says;

*“I had a vision and heard the voice of God asking me to wake up from bed, apply ointment on my body from head to toe and go out to treat patients who are having similar illnesses like myself. Since then I got cured of my severe illness of body pain and started the journey to give massages to those whom I can cure”.*

Apart from giving massages she also makes use of her faith to pray and ask God to cure those who are sick whom she is treating. She is also giving medicine for sicknesses where she cannot massage such as gastric problems, piles, kidney stone and those who could not conceive for 17-18 years. She used to check the patients by holding their hands and understanding their sicknesses and complications of their body. She used to give treatment at Jowai main market, Iew Mynsing, Umsning, Sutnga and Shillong. She has taken care of Mr. Sniawbhalang MLA, Mr. Nehlang MLA, some employees of Vishal market including the tribals and non-tribals.

The massage therapist said that it takes time to cure the pain through massage. There are cases where she has to massage for 1 to 3 hours, depending on the type of illness. The price she used to

---

charge from the patients is in the range of Rs. 200 to Rs. 500. There are cases where she has to continue massaging for 5 to 10 times. She is helping other women as well to learn massage therapy. Presently there are around 30 women who have learned from her and have started their own business of treating the sick. She has received positive feedback from patients who have been treated by those whom she has taught. (A. Palei, 2024).

### **Outcome of case study III**

Case study III envisages another technique of healing that is massage therapy. As per her testimony, she learned to give massage through the gift of God. She also shared with others what she learned and taught 30 women who are healer practitioners now. The knowledge of traditional healing will expand day by day if all healers are generous enough to share what they know.

### **Case Study IV**

D. Myrthong, a resident of Umdein in the West Khasi Hills District, was a retired Station Officer in the Fire and Emergency Service. In 1999, during his training in Maharashtra, he was diagnosed with ulcer cancer of the intestine. Despite undergoing treatment in Maharashtra and later at Down Town Hospital in Guwahati, he did not recover. The doctors recommended surgery, but he refused. Losing hope, he returned home. However, one day, he had a recurring dream in which a man instructed him to visit Wahriat Nongstoin to collect specific medicinal plants. Believing in the vision, he searched for and found the plants described. He consumed them for six months and gradually regained his strength, eventually making a full recovery. This experience led him to become a traditional healer, and he now cultivates medicinal plants, conducts research, and treats those in need. He has gained recognition and certification from the Khasi Hills Autonomous District Council, Meghalaya.

Several patients have testified to his healing abilities, including Mr. Alishna Kharsana, who had chest pain and was diagnosed with TB and later cancer. After taking D. Myrthong's medicine, he was

---

cured, and a subsequent hospital check-up confirmed that there was no longer any sickness. Another patient, Pinglan L. Marshallong, suffered from numbness in his body. After seeking treatment in various hospitals in Bangladesh and Shillong, with no improvement, he turned to D. Myrthong. Within a week of taking the medicine, he began to recover, regaining his ability to walk, dress, and eat normally. He is now fully recovered.

D. Myrthong specializes in treating various health issues, including cancer, eye problems, infertility in women, gastric problems, piles, high blood pressure, and others. He often receives guidance through dreams, which lead him to collect specific medicinal plants in the forest that he believes will be effective based on the vision. He cultivates many medicinal plants in his vicinity, while others that cannot thrive in the local climate are sourced from outside the district. To encourage a sustainable supply, he educates people about the medicinal plants, encourages them to cultivate these plants in their villages, and buys them from local growers. Through his visions, he has also learned how to prepare and administer these medicinal plants as treatments. He believes that God has provided humans with a diverse array of plants for medicinal use, and it is up to individuals to discover and utilize them effectively. D. Myrthong operates clinics in his village, Umdein in West Khasi Hills, and Mawkyrwat in South West Khasi Hills, with plans to establish another clinic in Upper Shillong (D. Myrthong, 2023).

#### **Outcome of case study IV**

Case study IV presented another method of treating patients through ethnomedicine that the healer saw in his dreams. It is also presented with the feedback of the beneficiaries who were cured of their illnesses. People thus acknowledge the value of traditional healers who could save others' lives with minimum expenditure.

#### **Case Study V**

**R. Syiem (Hair specialist)** aged 41, is from Sadew, Upper Shillong. She specializes in hair care, preventing hair fall and

---

regaining new hair for those who have lost it. She neither goes for any training nor studies to graduate as a professional doctor. She started her service on 20<sup>th</sup> June 2023. She faced hair fall problems and many people in her locality witnessed it. She tried to prepare herbal medicine and started applying it for herself. Initially she was not concerned about checking whether the medicine was helpful or not since she used to cover her head with a shawl. Gradually, her friends could witness that hair started growing on her head and becoming thick. She checked and realized that the medicine helped. People, both male and female, started asking her to prepare this medicine for them. Since she used this medicine for herself, she doubted that it would help others, nevertheless, she prepared the same medicine for males and females. The result was that it is much easier for males to regain their hair since their hair is short. For herself, it took 1 year to regain her hair fall while for males it takes 2 – 3 months only. Some people could see the hair growing even within 2 weeks. She believes that it is the blessing of God that is given to her to help those who are suffering from hair fall. She shared that the first medicine she made was helping only for hair growth. She faced the challenge of hair fall with approximately 500 hair falling in a week. Later on, she discovered a medicine that can prevent hair fall and also help hair growth. Even though she started a few months ago, more than 100 patients per day went to take medicine from her.

There was a phone call with one of the customers who took medicine and shared her feedback about the medicine. The customer said that she applied for 1 month and could not see any impact, no hair was growing. After more than 1 month she started seeing new hair growing on her head, she shared her satisfaction with the medicine and the price of it. She said that price does not matter provided the medicine is helping. There was a male also who shared his feedback. He said that after a week or 2 he could witness the growth of hair. He said that he has visited many health centers for hair growth but did not find any help. Later on, he went to take it from Ms. Reality Syiem and found it very helpful. She mixed 18 varieties of medicinal plants to make this medicine. She



---

was not willing to share the names of those medicinal plants, saying that it is a gift of God and it should not be shared with others except those whom she cares for and loves. She promised that she will share her knowledge along with the agreement that they should not hike the price and take advantage to accumulate wealth. She said that if many people know about it, there are chances that greedy people may start selling it at a very high price which might not be feasible for poor people to access. The range of the price is Rs. 300-400 per 500ml bottle. Some people gave more than what she charged out of their generosity. The medicine is supplied to the whole Khasi region such as Mairang, Nongstoin, Nongpoh, Amlarem, Jowai, Soh ryngkham and others. For those who face difficulties in regaining hair growth, she offered a special treatment to help them. She named the medicine as '*marvelous oil*' since she believed that it is the grace of God working miracles through her. She said that there is power in the name, if we believe the name of the medicine dedicated to the marvelous work of God. The medicine can be applied daily or thrice a week and can be taken every 3 months. It should not be mixed with other hair oils. Once a person starts applying the *marvelous oil* it should be continued till it is fully effective (R.Syiem, 2023).

#### **Outcome of Case Study V**

Case study V presented a healer who specialized in hair care she learned by herself. In this case, the healer was hesitant to teach others due to her personal concerns. However, it is understood that she is gifted even though she did not do any formal study about hair care, yet she could treat hair fall effectively with her own knowledge. She is a blessing to many patients with hair fall problems.

#### **Discussion**

Traditional healing practices have both advantages and disadvantages. The positive aspects include the local availability of traditional healers and medicinal plants, lower expenditure, no risk of side effects, and the ability for patients to communicate in their native language. Additionally, there is less paperwork

---

involved, and traditional healing can be highly effective to a certain extent. Many patients turn to traditional healers as a last resort when they have not found a cure through professional physicians and modern medicine, and are running low on budget. In such cases, traditional healers have been able to provide a cure. For instance, a local newspaper, "U Nongsain Hima," reported on May 3, 2007, about a child born without skin to cover the stomach. According to the child's mother, hospital treatments were ineffective, but the child received successful treatment from a traditional healer named Mr. Dlas Rane.

Traditional healing practices also serve as a primary source of income for practitioners and medicinal plant growers. The traditional healers mentioned above are full-time practitioners who rely solely on this profession for their livelihood. They have been practicing for many years, with some having taken over from their great-grandparents. This profession not only provides them with employment but also enables them to assist people in need. On the other hand, medicinal plant growers supply their products to markets, traditional healers, medicine factories, and also use them for personal consumption.

A Focus Group Discussion (FGD) comprising 5 members, including 3 traditional healers and 2 beneficiaries, was organized. The topics discussed were:

1. Knowledge and Techniques of Healing among Traditional Healers
2. The existence of witchcraft (Nongshohnoh) and black magic (Nong aiksuid)
3. Patients' perceptions of Traditional Healers.

As the moderator, the researcher ensured that the discussion was conducted topic-wise, allowing each member to share his opinions conveniently.

Regarding knowledge and techniques of healing, all participants believed that it is a gift of God, combined with hard work and

---

learning from elderly practitioners. Unfortunately, Khasi traditional healers are often unwilling to share their techniques and methods of preparing medicinal plants. One FGD participant, who was also a beneficiary, shared a personal experience: *"I was amazed when a traditional healer told me the name of a medicinal plant and asked me to pluck it from an open space where other plants are growing. I followed exactly the instructions given by the healer, yet the treatment didn't work. However, when the traditional healer used the same plant, it worked perfectly, and I was healed. I wonder what the secret is."* Many people are unaware of the names of medicinal plants and the techniques of preparing ethno medicine. It is vital to learn about these, as they serve as effective home remedies, preventing and healing illnesses.

The second topic discussed was the existence of witchcraft and black magic. All FGD members believed in their existence, although it's difficult to prove. They believe that witchcraft and black magic can cause illnesses and even death, having a direct impact on people's health and well-being. According to the healers, the main causes are greed, jealousy, and hatred. They firmly believe that witchcraft practice is hereditary and that those who want to stop practicing must seek the chief's (Syiem) prayers and offer sacrifices, publicly renouncing the devil and withdrawing from witchcraft practice. Traditional healers play a vital role in preventing and curing illnesses caused by witchcraft and black magic. They identify the cause of illnesses by breaking chicken eggs and reading the signs and symbols. To cure illnesses, they offer sacrifices of roosters, hens, or goats to chase away the devil.

Thirdly, there was a discussion on the perception of common people regarding traditional healers, their significance, and the relevance of indigenous healing in the postmodern period. One of the traditional healers shared an experience where a professional doctor filed a case against him for practicing without proper qualifications. However, the case was resolved when patients who

---

had benefited from his treatment came forward, supporting him and persuading the doctor to withdraw the case. They appreciated the effectiveness and reliability of his medicine, which was sold at a reasonable price of Rs. 50 to Rs. 100 only. The healer specialized in treating gastric problems in infants and adults.

The beneficiaries also shared that traditional healers need to upgrade themselves and improve their skills and knowledge to meet the demands of the post modern era. Traditional healers are particularly valuable in remote areas where public health facilities are lacking, and transportation is a challenge. Poor people can access their services without prior arrangements or paperwork, and the cost of traditional medicine is often affordable. Unlike modern medicine, traditional medicine often doesn't have fixed rates, making it convenient for patients to purchase.

Beneficiaries expressed their positive perception of traditional healers and the need to promote them, as they are deeply rooted in the culture, beliefs, and practices of the Khasi tribe. They emphasized the importance of preserving the knowledge and special talents of indigenous people, which have been passed down through generations.

### **Drawback in Harnessing Traditional Knowledge**

Traditional wisdom and knowledge for treating illnesses are not accessible to all Khasis. There are several reasons for this. **Firstly**, many tribal members are no longer interested in learning indigenous practices due to the influence of advanced technology. **Secondly**, traditional healers among the Khasi tribe, who possess knowledge about medicinal plants and their uses, are hesitant to share their expertise openly, as it is a source of livelihood for them. They fear that if others learn about it, they may practice it themselves and take away their business. **Thirdly**, the degradation of medicinal plants due to urbanization, deforestation, and shifting cultivation in the region makes it difficult to find these plants. **Fourthly**, traditional wisdom is challenging to understand and prove, as it often falls outside the scientific realm. For instance,

---

illnesses attributed to witchcraft, sorcery, black magic, evil spirits, and other supernatural forces are difficult to explain scientifically. To date, the government has not provided evidence to prove the existence of witchcraft, and no laws or regulations apply to it. The concept of evil spirits and sorcerers is abstract and invisible, relying on faith and belief rather than empirical evidence. As a result, treatments for such illnesses are often vague and can only be administered by specialized healers. **Finally**, there is controversy surrounding traditional health practices, as some professional doctors discourage people from seeking treatment from traditional healers due to their perceived lack of qualification in medicine.

### **Implications for Intervention**

Traditional healers rely on their personal gift and talent, commonly known as "*stad sla*," rather than "*stad kot*," which refers to knowledge based on books and teaching. In-depth knowledge of science and technology may not be their primary concern; thus, it became a stumbling block in accurately identifying illnesses and treating them with appropriate medicine or advanced technology. It is essential to integrate modern knowledge and indigenous knowledge by establishing a proper institute to train traditional healers or providing them with a platform to enhance their skills through workshops, seminars, awareness programs and group discussions. Another major concern is the hesitancy among traditional healers to share their knowledge openly. One of them said, "*It is a gift of God, given to me to serve patients effectively. I don't want to share my talent as God has chosen me for this purpose.*" Therefore, understanding the importance of sharing one's knowledge is vital for preserving and promoting traditional healing practices. Otherwise there is a risk of losing this knowledge when these healers pass away.

Assistance and guidance from the government on a regular basis is vital to enhance the skills of traditional healers. The government has provided certification and financial support to some extent, yet many others have not received it. They are facing challenges in

---

accessing medicinal plants, expanding their medicinal farming, and upgrading themselves with modern technology. If traditional healers are efficient and up-to-date with knowledge and information about illnesses and treatment processes, it could help foster good perception of traditional healers among the people. Based on the data collected, 66.4% of respondents acknowledged the significant role and value of traditional healers, indicating a positive perception towards them.

### **Conclusion**

The impact of indigenous practices in traditional healing is being acknowledged globally, with the World Health Organization (WHO) enhancing its recognition as a primary healthcare practice. India's National Health Policies, starting with the 1983 NHP, have taken measures to encourage both indigenous and modern health practices to prevent, promote, and improve the health sector (National Health Policy 1983). Similarly, the 2002 NHP also took steps to enhance traditional medicine.

Although indigenous knowledge is often marginalized and ignored due to advances in science and technology, research among the Khasi Tribe has shown that indigenous practices are sustainable, safe, and affordable. The Government of Meghalaya has acknowledged and enhanced the value of traditional health practitioners by enacting the Promotion and Protection of Khasi Medicine Act, 2011 (the Gazette of Meghalaya, n.d.). This Act regulates the criteria for registering and certifying traditional healers and has initiated the opening of the Khasi Traditional Medicine Institute. The efforts of traditional healers and the state government have saved thousands of tribal lives in remote areas who could not afford treatment in hospitals with modern medicine and advanced technology.

### **References**

B.Nongthliaw. (2024, January). Traditional healer. (O. Shangdiar, Interviewer)

BatesiTV. (2023, October 2023). Ia kiba la syllen ka khlieh bad

---

duh jingkyrmen, kane ka khubor ban pynphuh mat pat ia ki. Shillong, Meghalaya, India.

D.O Ochwang, J. O. (2017). Traditional Healer. Retrieved from <https://www.sciencedirect.com/topic/nursing-and-health-professions/traditional-healer>.

G.Marbaniang. (2024, January). Traditional healer. (O. Shangdiar, Interviewer)

Hima, N. (2007, May 3). Ioh jingkoit i khyllung bym lah shuh ki doktor ban sumar. Shillong, Meghalaya, India.

John D H Porter, J. M. (2023). The Nongai Dawai Khasi Healers of Meghalaya-A tribal understanding of the human potential. Indian Journal of Career and Livelihood Planning.

Meghalaya National Health Systems Resource Centre. (n.d.). Retrieved from <https://nhsrindia.org/meghalaya>.

Nianglang, M. M. (2023, November 23). Traditional Healer. (O. Shangdiar, Interviewer)

Nongsainhima. (2022, May 11). Shahkhot u Babu L. Nongspung ban sumar ia u Lat; Nangjanai ka sumar khasi. Shillong, Meghalaya, India.

Palei, M. A. (2024, January). Role of Traditional Healer. (O. Shangdiar, Interviewer)

Seth Oppong, K. B. (2021). Indigenous Community Health. [https://www.researchgate.net/publication/Support to Traditional Health Practitioners](https://www.researchgate.net/publication/Support%20to%20Traditional%20Health%20Practitioners). (n.d.). Retrieved from <https://megbrdc.nic.in/publications/manuals/lhp-english.pdf>.

T7News. (2023, July 18). Sngewnguh ki nongpang ia u Dr. D. Myrthong ba kila ioh jingkhiah tang naki dawai khasi. Shillong, Meghalaya, India.

## **DIGITAL SAFETY PROGRAM AND ELDERLY SATISFACTION: A STUDY OF ELDERS IN RECREATION CENTRES IN MUMBAI**

Saheli De Sarkar<sup>1</sup>, Vandana Chakrabarti<sup>2</sup>

### **Abstract**

This study investigates elderly engagement with digital safety programs in Mumbai, focusing on socio-demographic differences and how perceived service benefits relate to satisfaction levels. A cross sectional study was conducted among 150 elderly digital safety service users. 41.1% reported that free service is one benefit whereas 29.8% of the participants reported updating information on various issues. The study found that the benefits of digital safety learning service had highly significant effect ( $p < .001$ ) on level of satisfaction among elderly service receivers who gained technological knowledge ( $M=16.44$ ) from digital safety learning services. The benefits of accessing digital safety services have been evident for elderly people irrespective of physical impairments; this can be helpful in creating digital awareness among the elderly, in Mumbai.

**Key Words:** Digital safety program, Benefits, Service users, Elderly satisfaction, Mumbai

### **Introduction**

The rapid digitalization of urban environments has significantly changed how individuals access information, communicate, and manage daily tasks. Among those most impacted by these changes are elderly individuals, especially in densely populated cities like Mumbai (HelpAge India, 2023).

<sup>1</sup>Saheli De Sarkar, Research Scholar, Department of Social Work, SNDT Women's University, Mumbai

<sup>2</sup>Dr. Vandana Chakrabarti, Director and Professor, Department of Lifelong Learning and Extension, SNDT Women's University, Mumbai



---

As digital technologies become increasingly integrated into everyday life, there is an urgent need for tailored interventions to enhance digital literacy, online safety, and confidence among older adults (Charness & Boot, 2016).

In Mumbai, recreation centers have emerged as key community spaces for senior citizens, offering social, physical, and educational programs that improve their quality of life (Government of Maharashtra, 2024). Utilizing these centers to implement digital safety programs presents a strategic opportunity to foster digital inclusion in a trusted setting. Such programs aim to equip elderly individuals with the essential skills needed to navigate the digital world safely, thereby reducing risks such as cyber fraud, misinformation, and privacy breaches (Maurya et al., 2024).

This study examines the effectiveness of a digital safety program by focusing on two key aspects: service benefit—both tangible and perceived improvements in digital confidence and safety—and service satisfaction, which encompasses participants' overall contentment with the program's relevance, delivery, and usability. Understanding these dimensions is crucial for informing policy and practice around digital inclusion for older adults in urban India.

### **Rationale**

Mumbai's elderly population is steadily increasing, highlighting a growing need for accessible and inclusive public services tailored to their unique needs (United Nations Population Fund, 2023). While older adults are increasingly adopting digital devices, they often lack the skills and awareness to use technology safely, making them vulnerable to exploitation and exclusion (BritainThinks, 2015).

Evaluating the benefits of a digital safety program is important for assessing its impact on participants' knowledge, behavior, and digital autonomy. At the same time, examining service satisfaction

---

provides insights into the perceived value of the program and how well it aligns with the expectations and experiences of elderly participants (Xie, 2011).

Targeting recreation centers as delivery sites allows the program to reach elderly individuals in familiar, community-supported environments, fostering trust and engagement. The results of this study will help guide future efforts to expand effective digital literacy programs and contribute to broader policies on elder care, digital empowerment, and healthy aging in urban Indian contexts.

### **Objectives**

1. To describe elderly digital engagement by socio-demographic profile and opinion on service duration.
2. To analyze the relationship between service benefits of digital safety programs and elderly satisfaction.

### **Review of Literature**

#### **Digital Inclusion and the Elderly: A Global Concern**

The digital divide continues to affect older adults globally, limiting their access to technology and digital literacy (Friemel, 2016), and increasing their vulnerability to social exclusion, misinformation, and online fraud (Charness & Boot, 2016). Countries have responded with digital safety and literacy programs targeting the elderly, emphasizing basic skills, confidence-building, and safe internet practices (Xie, 2012).

#### **Effectiveness and Perceived Benefits of Digital Safety Programs**

Digital safety initiatives enhance older adults' technological confidence, autonomy, and personal security. Their effectiveness depends on accessibility, delivery, and perceived relevance. Programs tailored to everyday tasks boost satisfaction and confidence (Xie, 2011). Addressing needs like online banking or health record management further improves engagement (Choi & DiNitto, 2013). Hunsaker and Hargittai (2018) stress that

---

satisfaction stems from how personally beneficial the training is, with safety-oriented content—like fraud prevention—being especially valued.

In India, Lee (2024) underscores the importance of community-based, interactive learning environments in promoting participation. Urban seniors prefer familiar and supportive settings, such as senior associations (Sen et al., 2022). Tsai et al. (2015) emphasize repetitive, hands-on instruction with peer support, enhancing satisfaction and retention even for complex tasks.

Overall, the most effective programs offer practical, relevant content in socially supportive settings tailored to older adults' cognitive and emotional needs.

### **Service Satisfaction and User-Centered Program Design**

Elderly participants' satisfaction hinges on how well programs match their routines and preferences. Factors like timing, access, usefulness, and personalization are critical (Wang et al., 2024). Choi and DiNitto (2013) found satisfaction is higher when training meets immediate, practical needs and boosts users' control over technology. Similarly, Tsai et al. (2015) highlighted the value of hands-on, repetitive learning and peer support in increasing confidence and reducing anxiety.

However, poorly communicated or impersonal training reduces satisfaction (Hunsaker & Hargittai, 2018). In Spain, 60.1% of older learners felt session durations were inadequate, indicating the need for flexible, user-centered program designs (González et al., 2015). Such programs must adapt to older adults' slower learning pace and unique needs.

### **Theoretical Framework**

The Technology Acceptance Model (Davis, 1989) explains digital adoption through perceived usefulness and ease of use. For elderly users, these factors significantly influence the adoption of digital

---

safety programs (Salazar-Cardona et al., 2024).

### **Demographic and Socio-Economic Influences on Digital Engagement**

Age, gender, education, geography, and income shape elderly digital engagement. Neves and Amaro (2012) argue that socially engaging environments improve technology adoption among those aged 65 and above. In the U.S., seniors use the internet and smartphones at lower rates than younger groups (Anderson & Perrin, 2017).

Gender disparities persist, with older women—especially in low- and middle-income countries—facing barriers due to literacy and societal norms (Lloyd-Sherlock, 2000; Antonio & Tuffley, 2014). However, in urban areas, elderly women increasingly join digital literacy programs (Tomczyk et al., 2023).

Education and income levels are strong predictors of digital participation. Higher education enhances access and confidence in using digital tools (Miah, 2024), especially in Indian cities where educated seniors engage more with online services when supported by peers and local centers (Zhang, 2023). Selwyn (2004) adds that digital exclusion stems from broader social inequalities.

Geographic disparities also matter. While urban seniors benefit from better infrastructure and training, peri-urban and rural elders face logistical challenges (Zhang & Yang, 2024). In Mumbai North, access is higher due to active senior associations and well-equipped centers (Cho et al., 2021).

These findings confirm that demographic and socio-economic factors significantly influence digital engagement, calling for inclusive, context-sensitive program design.

### **Regional Perspectives: Digital Literacy Efforts in Asia**

Countries like South Korea, Singapore, and Japan promote senior

---

digital inclusion via government-NGO partnerships offering regular training (Aung, 2022; ANI & Batisai, 2024). These efforts improve confidence and reduce isolation but face challenges such as inconsistent program quality and varied exposure levels (Jung & Kim, 2025).

### **The Indian Context: Urban Elderly and Digital Safety Programs**

In India, elderly digital literacy—especially among low- and middle-income groups—is still emerging (Khokhar, 2016; Dutta & Muni, 2024). In cities like Mumbai, NGOs and community centers provide training on online safety, banking, and smartphone use. Organizations like HelpAge India focus on independent, safe digital participation. Despite their promise, few studies assess how seniors perceive these services (Hernandez & Faith, 2022), and most research remains general, lacking user-specific insights.

### **Research Gaps**

Global research emphasizes digital safety's role in enhancing elderly well-being (Charness & Boot, 2016; Seifert et al., 2020), but India-specific studies, particularly in urban settings like Mumbai, are limited. There is a shortage of evaluations measuring both effectiveness and satisfaction using structured metrics, particularly in developing contexts (Hunsaker & Hargittai, 2018). More research is needed to understand how elderly users experience these programs in local community environments.

### **Research Methodology**

#### **Study Design**

This study used a quantitative, cross-sectional design to assess the relationship between digital safety programs and the level of satisfaction among elderly individuals attending recreation centers in Mumbai. This design allowed for the collection of standardized data from participants at a single point in time.

---

### **Study Population**

The study population consisted of elderly individuals aged 60 years and older who were enrolled in digital safety programs at community-based recreation centers in Mumbai. To be included in the study, participants had to meet the following criteria:

- Be 60 years of age or older
- Be active participants in a digital safety program
- Be physically and mentally capable of participating in a structured interview
- Provide verbal and/or written informed consent

### **Study Sites**

The research was conducted at selected community halls, which are types of community recreation centers located in various urban areas of Mumbai, including Girgaon, Dadar, Kandivali, Borivali, Andheri West, Goregaon West, Powai Vihar, and Airoli. These centers actively hosted digital safety training sessions for senior citizens.

### **Sample Size and Sampling Technique**

All elderly participants were registered members of recreation centers in Mumbai that offered non-institutional social services, including digital safety learning programs conducted in community halls. These centers served as non-residential, community-based service delivery points for senior citizens.

The sample was chosen using a simple random sampling method to ensure that each eligible elderly member had an equal and unbiased chance of being included in the study. This approach enhanced the reliability and generalizability of the findings within the context of the selected centers.

The final sample size of 150 respondents was determined based on practical considerations such as feasibility, accessibility, and time constraints, which limited the ability to engage a larger number of participants. The data collection period extended over three

---

months, from June 2023 to August 2023, allowing for adequate coverage across various locations while maintaining consistency in data-gathering procedures.

### **Data Collection Method**

A structured, close-ended questionnaire was used to collect data through face-to-face personal interviews conducted by trained field researchers. The questionnaire, designed in both Hindi and English, covered the following sections:

- Demographics (age, gender, education, economic status, locality etc.)
- Digital safety benefits
- Program attributes (e.g., session duration)
- Level of satisfaction measured using a 5-point Likert scale (1 = very dissatisfied to 5 = very satisfied)

Researchers ensured a respectful, clear, and elder-friendly interview environment. All participants provided informed consent before participating.

### **Data Analysis**

Data were analyzed using frequency distribution for descriptive statistics and One-Way ANOVA to test the hypothesis regarding the relationship between digital service benefits and satisfaction levels.

Independent variables included age, gender, digital training duration, education, locality, economic status, and benefits of the digital safety program. The dependent variable was the overall level of satisfaction with the program.

### **Findings**

**Table 1.1: Demographic and socio economic status of elderly**

|                             | <b>Frequency</b> | <b>Percentage</b> |
|-----------------------------|------------------|-------------------|
| <b>Age</b>                  |                  |                   |
| 60-69                       | 57               | 38.0%             |
| 70-79                       | 69               | 46.0%             |
| 80+                         | 24               | 16.0%             |
| N                           | 150              | 100.0%            |
| <b>Gender</b>               |                  |                   |
| Male                        | 70               | 46.7%             |
| Female                      | 80               | 53.3%             |
| N                           | 150              | 100.0%            |
| <b>Education</b>            |                  |                   |
| Not completed school        | 6                |                   |
| Completed school            | 37               | 4.00%             |
| Completed high school       | 8                | 24.7%             |
| Completed college           | 79               | 5.3%              |
| Masters and above           | 19               | 52.7%             |
| PhD                         | 1                | 12.7%             |
|                             |                  | 0.7%              |
| N                           | 150              | 100.0%            |
| <b>Economic status</b>      |                  |                   |
| APL                         | 150              | 100.0%            |
| BPL                         | 0                | 0.00%             |
| N                           | 150              | 100.0%            |
| <b>Residential Locality</b> |                  |                   |
| Mumbai East                 | 1                | 0.7%              |
| Mumbai west                 | 17               | 11.3%             |
| Mumbai South                | 30               | 20.0%             |
| Mumbai North                | 72               | 48.0%             |
| Mumbai Central              | 25               | 16.7%             |
| Navi Mumbai                 | 5                | 3.3%              |
| N                           | 150              | 100.0%            |



---

The study classifies elderly participants from non-slum areas into three age groups: young-old (60–69 years), old-old (70–79 years), and oldest-old (80 years and above). A majority of the participants (46%) fell into the old-old category (70–79 years), while 38% were in the young-old group (60–69 years). This suggests that a significant portion of service users is within the more advanced age range of later life.

In terms of gender, 53.3% of service recipients were female, while 46.5% were male; all accessed non-institutional services from community halls, which are a type of recreation center. The educational attainment of the participants was relatively high, with 52.7% having completed college, 24.7% finishing high school, and 12.7% holding a Master's degree or higher. Only a small fraction of participants had lower educational levels: 5.3% completed only high school, 4.0% did not complete any schooling, and a negligible 0.7% earned a PhD.

As shown in Table 1.1, 100% of service recipients were classified as Above Poverty Line (APL), with no representation from the Below Poverty Line (BPL) category. This indicates a correlation between economic affluence and educational attainment among the elderly population using these digital safety programs.

Geographically, the largest proportion of elderly service users (48%) resided in Mumbai North, followed by 20% in Mumbai South, 16.7% in Mumbai Central, and 11.3% in Mumbai West. The least represented areas were Navi Mumbai (3.3%) and Mumbai East (0.7%). Most elderly individuals were affiliated with senior citizen associations and actively engaged in community halls or recreation centers, particularly in the Mumbai North region. This indicates a concentrated uptake of digital safety programs in areas with higher elderly populations and institutional support.

---

**Figure 1.2: Frequency of agreement regarding digital safety learning duration**

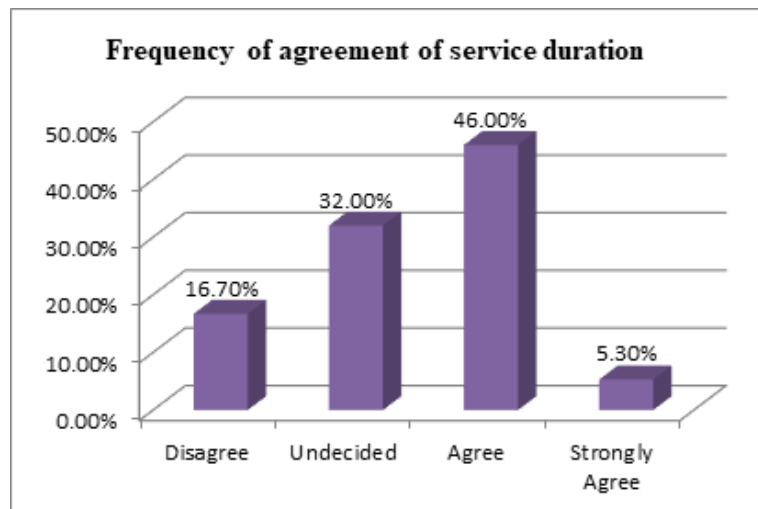
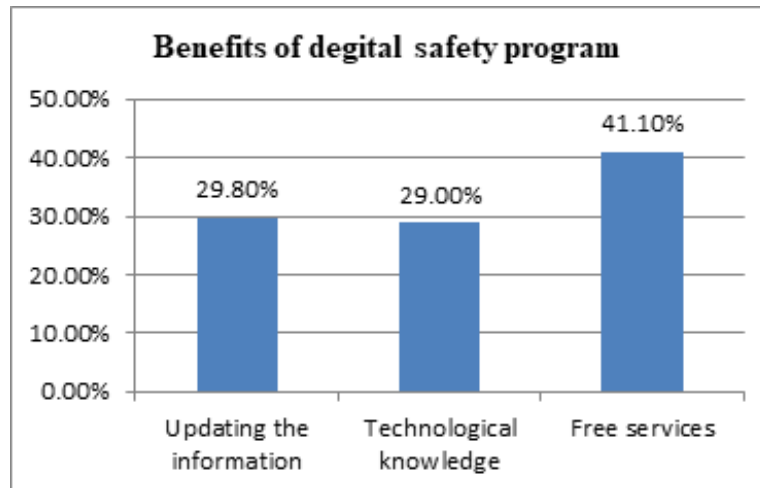


Figure 1.2 shows that 46.0% of elderly participants felt that the hours of the digital safety learning services adequately met their needs, with an additional 5.3% strongly agreeing. This indicates overall satisfaction with the duration and timing of the services provided. However, 16.7% disagreed, indicating that the service hours did not meet their requirements. Additionally, 32% of respondents were undecided, suggesting mixed or neutral opinions regarding the adequacy of the service timing. These results highlight that while a majority (51.3%) of elderly participants expressed satisfaction with the service hours, a significant portion (48.7%) were either undecided or dissatisfied.

**Figure 1.3: Frequency of digital Safety Learning Program Benefits**



**Table 1.4: Digital Safety Learning Program Benefits and Elderly Satisfaction**

The hypotheses in the study are as follows:

H0: There is no significant difference in the level of satisfaction based on digital safety learning service benefits.

H1: There is significant difference in the level of satisfaction based on digital safety learning service benefits.

Level of satisfaction

|                          | N   | Mean  | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             |
|--------------------------|-----|-------|----------------|------------|----------------------------------|-------------|
|                          |     |       |                |            | Lower Bound                      | Upper Bound |
| Updating the information | 41  | 15.05 | 1.396          | .218       | 14.61                            | 15.49       |
| Technological knowledge  | 45  | 16.44 | 1.960          | .292       | 15.86                            | 17.03       |
| Free Service             | 55  | 16.40 | 1.226          | .165       | 16.07                            | 16.73       |
| Total                    | 141 | 16.02 | 1.654          | .139       | 15.75                            | 16.30       |

**ANOVA[F=11.504,sig.=0.000\*\*]**

---

The study (Figure 1.3) showed that 41.1% of elderly participants identified access to free services as the most significant benefit of joining senior citizen associations. Additionally, 29.8% appreciated receiving updates on issues such as health and technology, while 29.0% valued the technological knowledge gained through these programs.

Statistical analysis (Table 1.4) revealed a highly significant effect [ $F=11.504$ ,  $p=0.000^{**}$ ] on satisfaction levels among elderly participants in non-slum areas. Significant differences were observed between the mean satisfaction scores of those who benefited from staying updated with information online ( $M=15.05$ ), gaining technological knowledge ( $M=16.44$ ), and receiving free services ( $M=16.40$ ).

The highest satisfaction was reported among those who gained technological knowledge, while the lowest was among those who used the services to stay updated with information online. Free services led to moderately high satisfaction levels. With a p-value of  $0.000^{**}$  ( $p<.001$ ), the findings confirm a strong relationship between digital safety learning services and elderly satisfaction, leading to the rejection of the null hypothesis.

These results indicate that digital safety programs—delivered through senior citizen associations in collaboration with NGOs—significantly enhance elderly satisfaction as part of noninstitutional social services in community recreation centers in non-slum areas. The differences in satisfaction levels, with technological knowledge ranked the highest, indicate that elderly participants prefer practical, skill-based learning rather than just passive access to information. This reflects a shift in the priorities of older adults—from being mere recipients of updates to actively acquiring digital skills that empower them in their daily lives.

## **Discussion**

The age distribution in this study provides valuable insights into the patterns of digital safety engagement among the elderly. These

---

findings support the work of Neves and Amaro (2012), which suggests that older adults, even those in their seventies, are open to adopting digital technologies when there is social support and guided interventions available, such as those provided in community or recreation centers. The engagement of the "old-old" group challenges outdated stereotypes that portray older adults as universally resistant to technology.

Additionally, the research indicates that 53.3% of service recipients accessing non-institutional services were female, compared to 46.7% male. This notable trend contrasts with earlier observations made by Lloyd-Sherlock (2000), who noted that older women in low- and middle-income countries often face compounded disadvantages, including lower educational attainment, limited financial autonomy, and socio-cultural norms that restrict their digital participation. Similarly, Antonio and Tuffley (2014) argued that older women are digitally marginalized due to structural inequalities, particularly in resource-limited settings. The higher female participation observed in this study suggests a departure from these traditional barriers, at least in the urban context of non-slum areas in Mumbai.

The analysis of the economic status of elderly digital service recipients reveals a significant issue: the complete absence of Below-Poverty-Line (BPL) participants indicates a structural exclusion of economically disadvantaged groups from digital programs. This exclusion may stem from a lack of access, awareness, or digital skills. This observation aligns with Selwyn's (2004) argument that the digital divide involves not just access to technology, but also social inclusion and the ability to effectively use that technology.

In this study, 51.3% of elderly service users reported feeling satisfied with the digital safety learning program's duration. This finding contrasts notably with a study by González et al. (2015) in Spain, where 60.1% of participants expressed dissatisfaction with the length of ICT courses. This discrepancy may reflect cultural

---

differences in expectations related to education, daily routines, and the responsiveness of institutions. In Mumbai, the collaboration between senior citizen associations and NGOs appears to lead to better-aligned service scheduling, especially when community feedback is prioritized and delivery is flexible.

The 32% of participants who were undecided likely indicates that many did not attend sessions consistently enough to form a strong opinion, or they found the communication regarding session timings unclear. This observation echoes the findings of Hunsaker and Hargittai (2018), which indicated that older adults often provide neutral or uncertain feedback when they lack confidence in evaluating service effectiveness, particularly in digital contexts where clarity of information is crucial. This underscores the need for clear communication about program schedules, as well as opportunities for elderly participants to help co-design the timing and structure of the services offered.

The findings from the study indicate that among elderly participants living in non-slum areas of Mumbai, acquiring technological knowledge through digital safety learning services resulted in the highest levels of satisfaction. In contrast, learning how to update information online yielded comparatively lower satisfaction levels. Additionally, a significant portion of participants (41.1%) identified free service access as a key benefit, highlighting the importance of affordability in fostering engagement. These results align with research by Xie (2011), which found that digital literacy programs tailored for older adults lead to increased self-efficacy and satisfaction, particularly when the content addresses practical technological needs. The preference for hands-on digital skills—such as using devices or accessing online services—over abstract informational updates supports Xie's assertion that relevance and direct applicability are crucial for elderly learners.

Overall, the findings indicate that elderly individuals' satisfaction with digital services is closely linked to factors such as relevance,

---

usability, and available support structures. Furthermore, they emphasize the ongoing necessity for digital safety programs that are context-sensitive, accessible, and economically inclusive, all of which should be grounded in community engagement

### **Conclusion**

This study shows that digital safety programs greatly improve the satisfaction and well-being of elderly participants at recreation centers in Mumbai. Key benefits include increased technological knowledge, access to free services, and timely updates on health and technology. Among these, gaining technological knowledge has the strongest impact on satisfaction. The study also finds that individual traits, such as socio-demographic factors and perceptions of service duration, affect engagement with these programs. These insights offer a framework for designing inclusive digital literacy programs tailored to older adults' needs, promoting their independence and inclusion through responsive, non-institutional social support initiatives.

### **Recommendations**

To enhance the effectiveness and satisfaction of digital safety programs for older adults, several strategic actions are recommended:

1. Service providers—including government agencies, NGOs, and community centers—should develop programs that cater to the unique learning styles, comfort levels, and needs of seniors. Emphasizing empathy, interpersonal support, and hands-on learning can significantly improve engagement and outcomes.
2. It is essential for trainers to undergo standardized training in geragogy (teaching older adults), emotional intelligence, and digital pedagogy. This ensures consistent and sensitive instruction across all service providers.
3. Strategic partnerships between NGOs and government institutions should be enhanced. This collaboration combines the broad reach of public systems with the personalized approach of community-based organizations, helping to minimize service fragmentation and maximize impact.

---

4. There is a necessity to implement ongoing monitoring of user satisfaction and perceived benefits through regular feedback systems. This practice allows for timely adjustments and ensures that programs remain responsive to the evolving expectations of older users.

5. Local, state, and national policy changes must prioritize digital equity for older adults by incorporating elder-friendly digital inclusion into mainstream development agendas.

### **Contribution to Practice**

This study contributes to social work and gerontological practice by showing that digital inclusion for the elderly is both a technological and social service issue. It highlights the need for a holistic approach that values accessibility, emotional support, and older adults' lived experiences. By emphasizing service benefits and satisfaction, the research shifts focus from mere access to meaningful engagement. This insight supports the creation of more inclusive policies and age-friendly practices within community-based social work settings.

### **Acknowledgement:**

This article is part of the doctoral research work of the first author, Saheli De Sarkar, PhD research scholar, conducted under the supervision of Dr. Vandana Chakrabarti, professor and ex-pro vice Chancellor at SNDT Women's University, Mumbai.

### **References**

Anderson, M., & Perrin, A. (2017). Tech adoption climbs among older adults. Pew Research Center. [https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2017/05/PI\\_2017.05.17\\_Older-Americans-Tech\\_FINAL.pdf](https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2017/05/PI_2017.05.17_Older-Americans-Tech_FINAL.pdf)

ANI, J. I., & Batisai, K. (2024). Promoting digital inclusion through public-private partnerships for older adults in Nigeria: A review. *Aging and Health Research*, 4(4), 1-6. <https://doi.org/10.1016/j.ahr.2024.100211>



---

Antonio, A., & Tuffley, D. (2014). The gender digital divide in developing countries. *Future Internet*, 6(4), 673-687. <https://doi.org/10.3390/fi6040673>

Aung, M. N., Koyanagi, Y., Nagamine, Y., Nam, E. W., Mulati, N., Kyaw, M. Y., Moolphate, S., Shirayama, Y., Nonaka, K., Field, M., Cheung, P., & Yuasa, M. (2022). Digitally inclusive, healthy aging communities (DIHAC): A cross-cultural study in Japan, Republic of Korea, Singapore, and Thailand. *International Journal of Environmental Research and Public Health*, 19(12), 6976. <https://doi.org/10.3390/ijerph19126976>

Britain Thinks. (2015). Life Offline: What life is like for older people who don't use the internet. Age UK. <https://www.ageuk.org.uk/siteassets/documents/reports-and-publications/re>

Charness, N., & Boot, W. R. (2016). Technology, gaming, and social networking. In Schaie, K. W., & Willis, S. L. (Eds.), *Handbook of the psychology of aging* (8<sup>th</sup> ed., pp. 389–407). Academic Press.

Cho, H., Choi, J., No, W., Oh, M., & Kim, Y. (2021). Accessibility of welfare facilities for elderly people in Daejeon, South Korea considering public transportation accessibility. *Transportation Research Interdisciplinary Perspectives*, 12, 100514. <https://doi.org/10.1016/j.trip.2021.100514>

Choi, N. G., & DiNitto, D. M. (2013). The digital divide among low-income homebound older adults: Internet use patterns, eHealth literacy, and attitudes toward computer/Internet use. *Journal of Medical Internet Research*, 15(5), e93. <https://doi.org/10.2196/jmir.2645>

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>

---

Dutta, D., & Muni, A. D. (2024). Unlocking The Digital Doors: Exploring The Barriers To Digital Media Adoption In The Elderly Women Of India. *Library Progress International*, 44(3), 9107-9110. <https://doi.org/10.48165/bapas.2024.44.2.1>

Friemel, T. N. (2014). The digital divide has grown old: Determinants of a digital divide among seniors. *New Media & Society*, 18(2), 313-331. <https://doi.org/10.1177/1461444814538648>

González, A., Ramírez, M. P., & Viadel, V. (2015). ICT learning by older adults and their attitudes toward computer use. *Current Gerontology and Geriatrics Research*, 2015, 1-7. <https://doi.org/10.1155/2015/849308>

Government of Maharashtra. (2024, February 15). Senior citizens welfare programs. Social Justice and Special Assistance Department. <https://sjsa.maharashtra.gov.in/>

HelpAge India. (2023, May 11). Bringing digital independence and empowerment to senior citizens. <https://www.helpageindia.org/bringing-digital-independence-empowerment-to-senior-citizens>

Hernandez, K., & Faith, B. (2022). Measuring digital exclusion: Why what is counted is also what counts (Digit Data Commentary 01). Digital Futures at Work Research Centre. <https://digit-research.org/wp-content/uploads/2022/04/>

Hunsaker, A., & Hargittai, E. (2018). A review of internet use among older adults. *New Media & Society*, 20(10), 3937-3954. <https://doi.org/10.1177/1461444818787348>

Jung, J., You, J., & Kim, D. (2025). Effective but sustainable? A case of a digital literacy program for older adults. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-025-13364-4>

---

Khokhar, A. S. (2016). Digital Literacy: How Prepared Is India to Embrace It? *International Journal of Digital Literacy and Digital Competence*, 7 ( 3 ) , 1 - 12 .  
[https://www.researchgate.net/publication/344892505\\_](https://www.researchgate.net/publication/344892505_)

Lee, H. (2024). Analysis of the impact of digital literacy on life satisfaction (2019–2022) for older adults in South Korea: A national community-based panel study. *Scientific Reports*, 14(1).  
<https://doi.org/10.1038/s41598-024-71397-0>

Lloyd-Sherlock, P. (2000). Old age and poverty in developing countries: New policy challenges. *World Development*, 28(12), 2157-2168. [https://doi.org/10.1016/s0305-750x\(00\)00077-2](https://doi.org/10.1016/s0305-750x(00)00077-2)

Maurya, A., Gupta, S., & Srivastava, A. (2024). Threats and Challenges Regarding Digital Literacy: Generation Z's Approach. *Journal of Communications Finance*, 1(1), 47-61.  
<https://nicf.gov.in/wp-content/uploads/2025/02/>

Miah, M. (2024). Digital Inequality: The Digital Divide and Educational Outcomes. Department of Business Information Systems , Tennessee State University .  
[https://www.researchgate.net/publication/379258768\\_](https://www.researchgate.net/publication/379258768_)

Neves, B. B., & Amaro, F. (2012). Too old for technology? How the elderly of Lisbon use and perceive ICT. *The Journal of Community Informatics*, 8 ( 1 ) .  
<https://doi.org/10.15353/joci.v8i1.3061>

Salazar-Cardona, J. A., Ceballos-Cardona, B., Paderewski-Rodriguez, P., Gutiérrez-Vela, F., & Arango-López, J. (2024). Player experience evaluation in game-based systems for older adults. *Sensors*, 24(18), 6121. <https://doi.org/10.3390/s24186121>

Seifert, A., Cotten, S. R., & Xie, B. (2020). A double burden of exclusion? Digital and social exclusion of older adults in times of COVID-19. *The Journals of Gerontology: Series B*, 76(3), e99-

---

e103. <https://doi.org/10.1093/geronb/gbaa098>

Selwyn, N. (2004). Reconsidering political and popular understandings of the digital divide. *New Media & Society*, 6(3), 341-362. <https://doi.org/10.1177/1461444804042519>

Sen, K., Prybutok, G., & Prybutok, V. (2022). The use of digital technology for social wellbeing reduces social isolation in older adults: A systematic review. *SSM - Population Health*, 17, 101020. <https://doi.org/10.1016/j.ssmph.2021.101020>

Tomczyk, Ł., Mascia, M. L., Gierszewski, D., & Walker, C. (2023). Barriers to digital inclusion among older people: A intergenerational reflection on the need to develop digital competences for the group with the highest level of digital exclusion. *Innoeduca. International Journal of Technology and Educational Innovation*, 9(1), 5-26. <https://doi.org/10.24310/innoeduca.2023.v9i1.16433>

Tsai, H. S., Shillair, R., Cotten, S. R., Winstead, V., & Yost, E. (2015). Getting Grandma online: Are tablets the answer for increasing digital inclusion for older adults in the U.S.? *Educational Gerontology*, 41(10), 695-709. <https://doi.org/10.1080/03601277.2015.1048165>

United Nations Population Fund. (2023). *Caring for Our Elders: Institutional Responses*. <https://india.unfpa.org/sites/default/files/pub-pdf/20230926>

Wang, N., Zhou, S., Liu, Z., & Han, Y. (2024). Perceptions and satisfaction with the use of digital medical services in urban older adults of China: Mixed methods study. *Journal of Medical Internet Research*, 26, e48654. <https://doi.org/10.2196/48654>

Xie, B. (2011). Effects of an eHealth literacy intervention for older adults. *Journal of Medical Internet Research*, 13(4), e90. <https://doi.org/10.2196/jmir.1880>

---

Xie, B. (2012). Improving older adults' e-Health literacy through computer training using NIH online resources. *Library & Information Science Research*, 34(1), 63-71. <https://doi.org/10.1016/j.lisr.2011.07.006>

Zhang, M. (2023). Older people's attitudes towards emerging technologies: A systematic literature review. *Public Understanding of Science*, 32(8), 948-968. <https://doi.org/10.1177/09636625231171677>

Zhang, N., & Yang, Q. (2024). Public transport inclusion and active aging: A systematic review on elderly mobility. *Journal of Traffic and Transportation Engineering (English Edition)*, 11(2), 312-347. <https://doi.org/10.1016/j.jtte.2024.04.001>

**LIFESTYLE VULNERABILITIES: NON-COMMUNICABLE DISEASE SUSCEPTIBILITY IN ADOLESCENT POPULATION OF KAMRUP (METRO) DISTRICT, ASSAM**

Dr Aakanksha Agarwala<sup>1</sup>, Dr Manab Deka<sup>2</sup>

**Abstract**

**Objective:** To assess prevalence of behavioural, lifestyle risk factors of NCDs and analyse the clusters of risk factors among adolescents in the Kamrup (Metro) district of Assam, India.

**Method:** A primary survey was conducted among school/college-going adolescents aged 15-19. Descriptive statistics, observed/expected ratio were used to analyse data and examine which particular risk factors tend to cluster more.

**Result and Conclusion:** 566 adolescents were covered in survey. Most prevalent risk factors were insufficient physical activity, inadequate fruit, vegetable intake, daily junk food. 45 percent of them had two risk factors. 3 simultaneous risk factors were present in 16 percent of them. Among boys most expressive cluster (alcohol consumption, insufficient physical activity) was 450 percent above expected. This is the first study conducted in this part of Northeast India covering lifestyle and behavioural risk factors of NCDs and clusters of the same among adolescents in detail.

**Keywords:** Adolescents, risk factors, clusters, Northeast India

<sup>1</sup>Dr Aakanksha Agarwala, Assistant Professor, Dept of Statistics, Amity University, Noida.

<sup>2</sup>Dr Manab Deka, Head, Dept of Statistics, Arya Vidyapeeth College

---

## **Introduction**

Adolescence is a phase of growth and development during which physical, physiological, and behavioural changes occur. The health status of an adolescent determines the health status in his/her adulthood and hence they need proper guidance, counselling, education, and nutrition. Adolescents (10–19 years) constitute 21 percent of India's total population, making it the largest in the world (1.5 billion adolescents) (Mathur et al., 2021). Due to their continuous transitional nature of psychological, and physical development, they are more vulnerable to certain behavioural risk factors, such as alcohol and tobacco use, poor diet, insufficient physical activity, and tobacco use and the acquisition of these unhealthy habits often persists lifelong. This increases the risk of developing non-communicable diseases (NCDs) like cardiovascular diseases, respiratory diseases, diabetes, hypertension, cancer and mental disorders from early adulthood onwards (Katarla et al., 2018). Clustering of risk factors i.e. simultaneous occurrence of several factors in the same individual is another great concern (Galan et al., 2005). The rationale behind clustering is that multiple lifestyle behaviours are interactive and multifactorial. Many adolescents die prematurely due to various reasons that are either preventable or treatable and many more suffer from chronic ill-health and disability. Morbidity and mortality occurring in this age group is mostly due to preventable causes. Young and growing children have poor knowledge and a lack of awareness about physical and psychological changes during adolescence. The major barriers are lack of accurate information, lack of proper guidance, parental ignorance, lack of skills, and insufficient services from health care delivery system.

Addressing NCDs is a global priority of the Sustainable Development Goal 3, especially for adolescents. However, because adolescents are primarily ignored while making attempts to address NCDs in adults, there is a dearth of existing research on the burden of NCDs, risk factor drivers, and effective interventions and policies for addressing these diseases in

---

adolescents. Since NCDs are often considered 'lifestyle diseases' and the youth population is commonly thought of as healthy, initially no significant efforts were made to assess their health, disease prevention and lifestyle modification. Yet adolescents experience a substantial share of the global NCD burden.

Adolescents in India are facing a dual burden of malnutrition and obesity. According to the World Health Organization (WHO), there has been a rising trend of obesity in our country for the past two decades and it is expected to increase even more by 2025. Recent studies indicate that nearly half of adolescents have unhealthy dietary habits, with one-third not consuming enough fruits and vegetables (Amod et al., 2022). Adolescents are recommended to have a minimum of 60 minutes of physical activity daily and muscle-strengthening exercise for at least 3 days a week. However, globally 81 percent of adolescents aged 11-17 years were insufficiently physically active in 2010 (WHO, 2014).

Over the past few years, the need to target adolescents to prevent NCD risk factor development has been globally recognized. “Catch them young and keep them healthy” has become a catchphrase in global NCD prevention. The National Non-Communicable Disease Monitoring Survey (NNMS), 2017-18, was conducted by the Indian Council of Medical Research (ICMR)- National Centre for Disease Informatics and Research (NCDIR) to provide information on key indicators to measure progress towards achieving the national NCD targets. Along with 12000 adults, the survey included 1700 adolescents aged 15-17 years. It captured information on tobacco, alcohol use, diet, physical activity, anthropometry, and school/college-related information from adolescents. Puwar et. al, 2018 conducted a case study on the prevalence of risk factors of NCDs among school-going adolescents in the Sabarkantha district of Gujarat. The researchers documented that not having fruits and lack of physical activity were among the major risk factors for NCDs. A similar study was conducted by Sreena et al., 2021 among adolescents attending higher secondary school in the Kasaragod district of



---

Kerala. The authors assessed the prevalence of multiple NCD risk factors and the clustering of these risk factors. They found clustered risk factors were prevalent in more than half of the adolescents included in the study and highlighted the need to reduce such multiple risk factors. Although several studies have addressed the prevalence of isolated risk behaviours, few studies have examined the coexistence of the same, and even fewer such studies have been done on adolescents.

Therefore, with this background, we conducted a study to assess the prevalence of behavioural and lifestyle risk factors of NCDs and also analyze clusters of such risk factors among adolescents in the Kamrup (Metro) district of Assam, India.

### **Methodology**

The study is based on primary data collected through a survey of school-going adolescents aged 15-19 years belonging to the Kamrup (M) district of Assam, India.

At 95 percent confidence level and 6 percent average prevalence of various risk factors with a precision factor of 2 percent, the sample size of 541 adolescents aged 15-19 was calculated. The reported prevalence of different NCD risk factors among adolescents in India was retrieved from a review of existing literature and surveys. The National Non-Communicable Disease Monitoring Survey (NNMS) conducted during 2017-18 by ICMR-NCDIR reported 3-7 percent use of tobacco (smoke & smokeless) and 3-5 percent use of alcohol among adolescents. This was similar to the prevalence reported in other surveys like NFHS-5. The Global Youth Tobacco Survey, 2019, reported around 9 percent of adolescents consumed tobacco in India and 11 percent in Assam. 5-7 percent of adolescents suffer from obesity (NFHS-5).

Considering an average class size of 35, 17 schools/colleges were randomly selected from the list of schools/colleges available. The sample size was calculated using the formula below (Naing et al., 2022):

---


$$\frac{z^2 \times p \times (1 - p)}{E^2}$$

where

z is the value of Z statistics for a 95 percent confidence interval

p is the average prevalence rate

E is the error

A self-administered questionnaire was used for data collection. Prior consent of the authority of the respective school/college, as well as the respondent, was sought before conducting the survey. The questions included were based on the WHO's Stepwise approach to NCD risk factor surveillance (STEPS) on NCD risk factors and the NNMS conducted by the ICMR-NCDIR. The questionnaire captured information on sociodemographic variables, behavioural, and lifestyle factors such as dietary habits, substance use, and physical activity. Anthropometric measurements such as height and weight were also included. The risk factor indicators have been listed in Table 1

**Table 1: Indicators of risk factors used in the present study**

| Risk factor                    | Definition                                                                                                                |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Unhealthy diet                 | Fruits intake<3 times per day<br>Vegetable intake< 3 times per day<br>Fast food/fried food/soft drink intake> once a week |
| Tobacco consumption            | Current use or last 30 days consumption                                                                                   |
| Alcohol consumption            | Current use or last 30 days consumption                                                                                   |
| Insufficient physical activity | Moderate/vigorous activity<60 minutes per day                                                                             |
| BMI                            | Overweight (85 <sup>th</sup> percentile<BMI<95 <sup>th</sup> percentile)<br>Obese (BMI≥95 <sup>th</sup> percentile)       |

The body mass index (BMI) was calculated using the height and weight as reported by the participants, using the formula:

$$\text{BMI} = \text{Weight (kg)} / \text{Height (m}^2\text{)}.$$

BMI was plotted on the WHO BMI growth reference chart for 5-19 years and adolescents were, therefore, classified as

---

underweight, healthy, overweight, and obese.

Data were entered and analysed using the IBM SPSS version 26. Frequencies, proportions, and percentages were used to analyse the data descriptively. To examine which particular risk factors tend to cluster more rather than occurring individually, all the possible risk factor combinations were studied comparing the factors' observed and expected prevalence. A cluster was considered to be prevalent when the observed (O) prevalence of a combination of risk factors exceeded its expected prevalence. The expected prevalence for a given combination was calculated by multiplying the individual probabilities of each behaviour based on its observed occurrence in the survey. Observed/expected (O/E) ratios higher than 1 are indicative of clustering (Galan et al., 2005; Schuit et al., 2002).

### **Results**

The study was conducted among 566 adolescents of which 47.3 percent were boys and 52.7 percent girls. 37.5 percent were aged 16 years, 27 percent were aged 15 years, 22.5 percent were 17 years old, followed by 8.8 percent 18 years and 4.1 percent 19 years. The majority (92.4 percent) belonged to the Hindu religion, followed by 5.3 percent Muslims, and 0.5 percent Christians. 66.7 percent belonged to the unreserved caste category, followed by 19.2 percent OBCs.

### **Lifestyle/ Dietary behaviours**

About 35.6 percent of boys and 30.8 percent of girls reported being sedentary for more than an hour during the day. More than 50 percent of them had a screen time exceeding one hour. Similar observations were made among the girls. Very few boys and girls did activities like dancing, singing or playing during their free hours.

We observed that only 28 percent of boys consumed fruits daily and 45.7 percent consumed vegetables daily. 26.5 percent of girls consumed fruits daily while 61.9 percent of them had vegetables

daily. Poor intake of fruits was found in almost 80 percent of the adolescents

|                                                  | Boys | Girls | Total |
|--------------------------------------------------|------|-------|-------|
| <b>Fruits Consumption</b>                        |      |       |       |
| Daily                                            | 28.0 | 26.5  | 27.0  |
| Sometimes                                        | 38.3 | 43.5  | 40.8  |
| Rarely                                           | 33.7 | 30    | 32.2  |
| <b>Inadequate Fruit Intake</b>                   | 87.4 | 88.6  | 88.2  |
| <b>Vegetable Consumption</b>                     |      |       |       |
| Daily                                            | 45.7 | 61.9  | 53.9  |
| Rarely                                           | 18.2 | 13.8  | 15.7  |
| Sometimes                                        | 36.1 | 24.3  | 30.4  |
| <b>Inadequate Vegetable Intake</b>               | 68.3 | 58.2  | 62.2  |
| <b>Junk food consumption</b>                     |      |       |       |
| Daily                                            | 29.6 | 25.2  | 26.8  |
| Sometimes                                        | 55.0 | 60.5  | 57.8  |
| Rarely                                           | 15.4 | 14.3  | 15.4  |
| <b>Packet chips/ fried items consumption</b>     |      |       |       |
| Daily                                            | 29.6 | 22.4  | 25.2  |
| Sometimes                                        | 53.4 | 61.4  | 58.7  |
| Rarely                                           | 17.0 | 16.2  | 16.1  |
| <b>Soft drinks/carbonated drinks consumption</b> |      |       |       |
| Daily                                            | 19.7 | 15.7  | 17.3  |
| Sometimes                                        | 56.1 | 64.5  | 60.9  |
| Rarely                                           | 24.2 | 19.8  | 21.8  |

Figures indicate percent

Junk food/fast food/ street food included items like pani puri, pizza, burgers, instant noodles, momo... It was observed that 26.8 percent of adolescents consumed junk food daily while about 57.8 percent were occasional consumers (3-5 days). 58.7 percent of them consumed fried food/packeted chips occasionally.

### Physical activity

16.4 percent and 21.9 percent of boys and girls respectively reported they never included physical activity in their daily routine. 52.6 percent of boys and 38.5 percent of girls reported doing some or other physical activity daily

**Table 3: Physical activity, Yoga/mediation**

|              | Insufficient physical activity | Physical activity |           |              | Yoga/Meditation |           |              |
|--------------|--------------------------------|-------------------|-----------|--------------|-----------------|-----------|--------------|
|              |                                | Daily             | Sometimes | Rarely/never | Daily           | Sometimes | Rarely/never |
| <b>Boys</b>  | 88.7                           | 52.6              | 31.0      | 16.4         | 22.7            | 33.8      | 43.5         |
| <b>Girls</b> | 90.4                           | 38.5              | 39.6      | 21.9         | 35.8            | 22.7      | 41.5         |
| <b>Total</b> | 88.8                           | 46.0              | 35.2      | 18.8         | 29.4            | 28.4      | 42.2         |

Figures indicate percent

The most common form of physical activity among the girls was walking while among the boys it was cycling. Only 22.7 percent of boys and 35.8 percent of girls reported including yoga/meditation in their daily routine. 88.8 percent of the adolescents did not perform sufficient physical activity during the day.

On plotting the calculating BMI values on the BMI growth reference chart for boys and girls, it was found that 41.4 percent of boys and 55.8 percent of girls were underweight. 3 percent of them suffered from obesity. The prevalence of overweight was 8 percent among the boys and 3.7 percent among the girls

**Table 4: Body Mass Index**

|                    | <b>Boys</b> | <b>Girls</b> | <b>Total</b> |
|--------------------|-------------|--------------|--------------|
| <b>Underweight</b> | 41.4        | 55.8         | 48.9         |
| <b>Healthy</b>     | 45.1        | 39.8         | 42.5         |
| <b>Overweight</b>  | 8.1         | 3.7          | 5.6          |
| <b>Obese</b>       | 5.4         | 0.7          | 3.0          |

Figures indicate percent

#### **Tobacco/alcohol use**

From Table 5, 8 percent of the adolescents reported never using or experimenting with tobacco and alcohol. The prevalence of current daily use of tobacco among boys and girls was around 5 percent each. 10 percent of adolescents reported consuming alcohol within the last 30 days of the survey, while about 20 percent of them had consumed the same in the past 12 months. 8

percent of girls and 6 percent of boys reported exposure to second-hand smoke either around friends or family.

**Table 5: Consumption of tobacco and alcohol**

|                                          | Boys | Girls | Total |
|------------------------------------------|------|-------|-------|
| <b>Ever consumed any form of tobacco</b> | 7.6  | 7.6   | 8.0   |
| <b>Current use</b>                       | 4.4  | 4.8   | 4.7   |
| <b>Exposure to second-hand smoke</b>     | 8.3  | 15.9  | 13.2  |
| <b>Ever consumed any form of alcohol</b> | 6.8  | 8.6   | 8.3   |
| <b>Current use</b>                       | 5.6  | 6.1   | 5.9   |
| <b>Last 30 days</b>                      | 8.2  | 12.9  | 10.5  |
| <b>Last 12 months</b>                    | 21.3 | 17.1  | 20.5  |

Figures indicate percent

#### **Self-rated health and family report of chronic illness.**

Self-rated health is an all-encompassing subjective measure of an individual's health that takes into account biological, mental, social, and functional aspects, as well as individual and cultural beliefs and health behaviours. In our study, nearly half of the adolescents rated their health as good. 5.5 percent of girls and 2.5 percent of boys rated their health as poor

**Table 6: Self-rated health**

|              | Excellent | Very Good | Good | Poor | Very Poor |
|--------------|-----------|-----------|------|------|-----------|
| <b>Boys</b>  | 10.4      | 36.5      | 50.2 | 2.5  | 0.4       |
| <b>Girls</b> | 9.5       | 25.1      | 57.8 | 5.5  | 2.2       |
| <b>Total</b> | 10.6      | 30.4      | 53.6 | 3.9  | 1.5       |

Figures indicate percent

Around 5.8 percent of the girls were on medication for blood pressure (high/low) and 7.6 percent of boys took medicines for blood pressure. Overall, 3.3 percent of the study group were on heart disease medication (table 5.9). 14 percent of boys reported a prevalence of high/low blood sugar and blood pressure in either of their parents while 19 percent of the girls had one of their parents

having high/low blood pressure. 9.6 percent of the adolescents reported their parents taking medicines for two or more disease combinations.

**Table 7: NCD prevalence/medications among the study group**

|              | Ever measured Cholesterol | Currently Taking Medicines | Ever measured Blood Sugar | Currently Taking Medicines | Ever measured Blood Pressure | Currently Taking Medicines | Ever went to the doctor for heart related issue | Heart disease medicine |
|--------------|---------------------------|----------------------------|---------------------------|----------------------------|------------------------------|----------------------------|-------------------------------------------------|------------------------|
| <b>Boys</b>  | 2.9                       | 0                          | 2.5                       | 0                          | 5.8                          | 2.6                        | 1.8                                             | 3.3                    |
| <b>Girls</b> | 2.2                       | 1.4                        | 1.8                       | 0.9                        | 7.6                          | 2.8                        | 2.2                                             | 3.2                    |
| <b>Total</b> | 2.8                       | 1.3                        | 2.4                       | 1.0                        | 6.5                          | 2.8                        | 2.0                                             | 3.3                    |

Figures indicate percent

**Table 8: Family history of NCD prevalence/medications**

|              | Cholesterol | Blood Sugar | Blood Pressure | Heart Disease |
|--------------|-------------|-------------|----------------|---------------|
| <b>Boys</b>  | 2.6         | 14.8        | 14.8           | 5.2           |
| <b>Girls</b> | 2.8         | 8.3         | 19.4           | 3.2           |
| <b>Total</b> | 3.0         | 11.2        | 17.5           | 4.3           |

Figures indicate percent

### School/college-related information

More than 50 percent of adolescents reported engaging in physical and sports activities, while 28 percent participated in yoga classes in school or college. About 60 percent of the respondents reported receiving awareness and education about the harmful effects of substance use in their school/college, while 70 percent of them received education on the benefits of a healthy diet and physical activity.

- The observed and expected prevalence of the 31 possible combinations of the five risk factors has been shown in Table 9. The observed prevalence for most of the risk behaviours together was higher than expected based on their individual prevalence. The clustering of five risk factors was present in boys (O/E ratio: 4.00). This result shows that the proportion at which the five risk factors occur was 300 percent higher among the boys than the

---

expected proportion if these risk factors occurred individually. Another noteworthy observation was the clustering of alcohol consumption, insufficient physical activity and BMI with an observed/expected ratio of 2.29 in boys and 2.33 in girls. Among boys, the most expressive cluster (alcohol consumption and insufficient physical activity) was 450 percent above the expected (O/E ratio=5.50). It might be that boys who drink alcohol are much more likely to be physically inactive, and vice versa. The strong link suggests that these two behaviours might be influenced by similar social or environmental factors (e.g., peer influence). Among the girls, the highest cluster (alcohol, tobacco consumption, and insufficient physical activity) value was 560 percent above the expected (O/E ratio=6.60). Girls who engage in one of these risky behaviours are much more likely to also engage in the other two. This may suggest a high-risk subgroup with multiple behavioural challenges that could benefit from targeted interventions. The O/E ratio for most of the other combinations was close to 1. These results suggest a strong tendency for these risk behaviours to co-occur rather than act independently. A group of healthy girls having a relatively healthy profile, in which all factors were negative, was also observed. This combination appeared to be 35 percent more prevalent than expected in girls.



T: current tobacco consumption; A: current alcohol consumption; P: insufficient physical activity; B: BMI; D: unhealthy diet  
 “+”, “-” indicates the presence, or absence of the respective risk factor; “\_” O/E not calculated

| No. of risk factors | T | A | P | B | D | Boys     |          |      | Girls    |          |      |
|---------------------|---|---|---|---|---|----------|----------|------|----------|----------|------|
|                     |   |   |   |   |   | Observed | Expected | O/E  | Observed | Expected | O/E  |
| 0                   | - | - | - | - | - | 6.10     | 7.10     | 0.85 | 9.90     | 7.31     | 1.35 |
| 1                   | + | - | - | - | - | 0        | -        | -    | 0.70     | 0.20     | 0.35 |
| 1                   | - | + | - | - | - | 0        | -        | -    | 0.40     | 0.40     | 1.00 |
| 1                   | - | - | + | - | - | 14.6     | 16.6     | 0.87 | 12.7     | 16.50    | 0.76 |
| 1                   | - | - | - | + | - | 6.90     | 4.60     | 1.50 | 2.50     | 2.80     | 0.89 |
| 1                   | - | - | - | - | + | 11.1     | 9.60     | 1.15 | 12.3     | 12.80    | 0.96 |
| 2                   | + | + | - | - | - | 0.4      | 0.09     | 4.44 | 0        | -        | -    |
| 2                   | + | - | - | + | - | 0        | -        | -    | 0.40     | 0.10     | 4.00 |
| 2                   | + | - | - | + | - | 0.40     | 0.10     | 4.00 | 0        | -        | -    |
| 2                   | - | - | - | + | + | 5.00     | 6.35     | 0.79 | 3.90     | 5.00     | 0.78 |
| 2                   | + | - | - | - | + | 11.1     | 3.30     | 3.36 | 12.3     | 4.20     | 2.92 |
| 2                   | + | + | + | - | - | 1.10     | 0.2      | 5.50 | 1.4      | 0.42     | 3.30 |
| 2                   | + | - | + | - | - | 0.40     | 0.5      | 0.80 | 0.4      | 0.50     | 0.80 |
| 2                   | - | + | - | - | + | 0        | -        | -    | -        | -        | -    |
| 2                   | - | - | + | - | + | 25.3     | 22.5     | 1.12 | 43.7     | 29.0     | 1.12 |
| 2                   | - | + | + | + | - | 11.1     | 11.0     | 1.00 | 32.7     | 6.50     | 0.96 |
| 3                   | + | + | + | - | - | 0.40     | 0.2      | 2.00 | 0        | 0        | 0    |
| 3                   | + | + | - | - | + | 0        | -        | -    | 0.4      | 0.20     | 2.00 |
| 3                   | - | + | + | - | + | 0        | -        | -    | 0.4      | 1.60     | 0.25 |
| 3                   | + | - | + | + | + | 0.40     | 0.72     | 0.55 | 0        | -        | -    |
| 3                   | - | - | + | + | + | 14.60    | 14.80    | 0.98 | 19.7     | 11.40    | 1.17 |
| 3                   | + | - | - | + | + | 0        | -        | -    | -        | -        | -    |
| 3                   | + | + | + | + | - | 0        | -        | -    | -        | -        | -    |
| 3                   | - | + | + | + | - | 1.10     | 0.48     | 2.29 | 0.7      | 0.30     | 2.33 |
| 3                   | - | + | - | + | + | 0        | -        | -    | -        | -        | -    |
| 3                   | + | + | - | + | - | 0        | -        | -    | 0.4      | 0.06     | 6.66 |
| 4                   | + | + | + | + | - | 0        | -        | -    | 0.7      | 0.12     | 5.83 |
| 4                   | + | + | + | - | + | 0.40     | 0.30     | 1.33 | 0.7      | 0.50     | 1.40 |
| 4                   | + | + | - | + | + | 0        | -        | -    | -        | -        | -    |
| 4                   | - | + | + | + | + | 0        | -        | -    | 0        | -        | -    |
| 4                   | + | - | + | + | + | 0        | -        | -    | 0        | -        | -    |
| 5                   | + | + | + | + | + | 0.80     | 0.20     | 4.00 | 0        | -        | -    |

---

## Discussion

The present study determined the prevalence of behavioural risk factors of NCDs like unhealthy diet, physical inactivity, BMI and substance use and also clustering of these factors among school/college-going adolescents aged 15-19 years of the Kamrup(M) district of Assam. The most prevalent risk factors for NCDs were insufficient physical activity, inadequate fruit and vegetable intake, and daily junk food consumption. The high prevalence of these risk factors has been documented in previous studies as well. Puwar et al, 2018 , also reported not having daily fruit in the diet and not doing physical activity were the two major risk factors among school-going adolescents of the Sarbakantha district of Gujarat. The NNMS by NCDIR-ICMR reported that 25.2 percent of adolescents had not met the WHO-recommended levels of physical activity. A study comparing NCD risk factors among adolescents in five Asian countries also observed that 85 percent of the adolescents in India had inadequate fruit and vegetable consumption. Borle et al, 2022, in a study on 264 adolescents in Delhi, reported a poor intake of fruit and vegetables in 10-12 percent of them, along with a high intake of processed and carbonated foods. While limited evidence exists concerning the consumption of packaged food or junk food among adolescents in the Indian context, studies from other developing nations argue that the affordability of packaged foods, peer influence, absence of healthy alternatives and perception of packaged foods as safer options make them popular food choice among the adolescents.

The prevalence of current use of tobacco was 3 percent and this finding was consistent with findings from Global Adolescent Tobacco Survey-2 (GATS-2), which reported current use of tobacco as 12.4 percent. These expected variations are related to differences in study design, sampling strategy, age groups selected and related factors. A similar prevalence was found on close examination of the results of the GATS-2 survey for the age group 15-17 years. The prevalence of current alcohol use in the last 12 months was 6 percent which was higher than the report published

---

by NNMS. A study by Mahanta et al, 2016 found a high prevalence of alcohol consumption among school-going adolescent girls and boys in an industrial town of Assam. It has been reported that affordability and peer influence are common factors influencing alcohol-using behaviour among adolescents in North India (Gupta et al., 2013).

The prevalence of clustering of these risk factors was also investigated. Results showed that only 8 percent of the study population exhibited no risk behaviours while 45 percent of them had two simultaneous risk factors. 3 simultaneous risk factors were present in 16 percent of them, while about 2 percent had 4 or more. It was seen that the risk factors tend to cluster together with an observed/expected ratio >1 for most of the factors. Lourenco et al, 2020 also reported risk factor clustering among boys and girls aged 14-20 years. The authors mentioned that behavioural influences on lifestyle do not occur in a univariate manner but instead are interactive and multifactorial influences. In our study, only 8 percent of the adolescents did not have any risk factor against 44 percent who had 2 risk factors and 17 percent who had 3 or more.

### **Conclusion and Recommendations:**

Understanding risk factor clustering has important implications for the design of adolescent health strategies. It can be used to identify lifestyle-related risk factors that lead to other unhealthy practices. Schools should organize campaigns promoting safe and nutritious food, as well as create awareness about physical activities through initiatives like the Fit India Movement. Parents, schools/colleges should focus on offering children psychological and mental health services, encouraging healthy lifestyle changes through behaviour modification. Limiting junk food product advertising, raising awareness of sexual and reproductive health issues, teaching parents the importance of preventing teenage pregnancy and early marriage, and counselling the kids about nutrition and reproductive health are among the various ways suggested by previous researchers to mitigate the risk exposure.

---

The whole country is going through a rapid nutrition transition where preference for packaged, processed food over traditional nutritious diet or home-cooked meals is the major contributor and this part of Assam is no exception. The adolescents of the Kamrup Metro district of Assam seem to be at high risk of developing NCDs owing to their lifestyle and dietary habits, and we have been able to bring to light this major issue, which otherwise has not been explored yet. This is the first study conducted in this part of Northeast India which covers the lifestyle and behavioural risk factors of NCDs and clusters of the same among adolescents in detail. Further in-depth and large-scale research is required for comprehensive health interventions by schools/colleges and the government as well as to track the progress being made in tackling NCDs and associated risk factors in this age group.

**References:**

1. Borle, A. L., Gangadharan, N., & Basu, S. (2022). Lifestyle practices predisposing adolescents to non communicable diseases in Delhi. *Dialogues in Health, 1*, 100064. <https://doi.org/10.1016/j.dialog.2022.100064>
2. Galan I., Rodriguez-Artalejo F., Tobias A., Diez-Ganan L., Gandarillas A., Zorrilla B.(2005). Clustering of behaviour-related risk factors and its association with subjective health. *Gac. Sanit.*;19:370–378.
3. Gupta S, Sarpal SS, Kumar D, Kaur T, Arora S.(2013). Prevalence, pattern and familial effects of substance use among the male college students -a north Indian study. *J Clin Diagn Res*;7:1632-6.
4. Katarla I, Hale J, Watkins D. (2018). Evidence brief. reducing noncommunicable disease risk factors in adolescents: an investment case for India.
5. Lourenço, C. L. M., Filho, R. C. D. S. S., Hauser, E.,

---

Barbosa, A. R., & Mendes, E. L. (2020). Cluster and simultaneity of modifiable risk factors for cardiovascular diseases in adolescents of Southeast Brazil. *Motriz-revista De Educacao Fisica*, 26(2). <https://doi.org/10.1590/s1980-6574202000020033>

6. Mahanta, Beauty & Mohapatra, Pradyumna & Phukan, N & Mahanta, Jagadish. (2016). Alcohol use among school-going adolescent boys and girls in an industrial town of Assam, India. *Indian Journal of Psychiatry*. 58. 157. 10.4103/0019-5545.183784.
7. Mathur, P., Kulothungan, V., Leburu, S., Krishnan, et al, ICMR-NNMS investigator group (2021). Baseline risk factor prevalence among adolescents aged 15-17 years old: findings from National Non-communicable Disease Monitoring Survey (NNMS) of India. *BMJ open*, 11(6), e044066. <https://doi.org/10.1136/bmjopen-2020-044066>
8. Naing, L., Nordin, R. B., Abdul Rahman, H., & Naing, Y. T. (2022). Sample size calculation for prevalence studies using Scalex and ScalaR calculators. *BMC medical research methodology*, 22(1), 209. <https://doi.org/10.1186/s12874-022-01694-7>
9. Puwar, T., Saxena, D., Yasobant, S., & Savaliya, S. (2018). Noncommunicable Diseases among School-going Adolescents: A Case Study on Prevalence of Risk Factors from Sabarkantha District of Gujarat, India. *Indian Journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*, 43(Suppl 1), S33–S37. [https://doi.org/10.4103/ijcm.IJCM\\_117\\_18](https://doi.org/10.4103/ijcm.IJCM_117_18)
10. Schuit, A. J., van Loon, A. J., Tijhuis, M., & Ocké, M. (2002). Clustering of lifestyle risk factors in a general adult population. *Preventive medicine*, 35(3), 219–224. <https://doi.org/10.1006/pmed.2002.1064>

- 
11. Sreena, T. V., Mathews, E., Kodali, P. B., & Thankappan, K. R. (2021). Clustering of noncommunicable disease risk factors among adolescents attending higher secondary schools in Kasaragod District, Kerala, India [version 2; peer review: 1 approved with reservations]. *Wellcome open research*, 6, 145.

## **MINDFULNESS-BASED SOCIAL WORK INTERVENTION FOR ADOLESCENCE SOCIAL INTELLIGENCE**

Sachu M<sup>1</sup>, Dr. Lizy P. J.<sup>2</sup> Dr. Akhila K P<sup>3</sup>

### **Abstract**

Development of social intelligence on adolescents plays a very vital role in shaping their future in society. The technique of mindfulness will be of immense help to this cause as they focus on the foundations of a grounded human being by way of effective control of one's body, mind and emotions. The major focus of the present study is to enhance the social intelligence aspect of adolescent girls. This will be facilitated through an intervention study using a series of events involved in Mindful Breathing. In this study, adolescent girls are guided through a process of paying attention to their breath, mindfully. The objective of the study was to facilitate social intelligence among adolescent girls through intervention programmes based on Mindful Breathing. Hence this study would help in addressing certain key needs of adolescent girls in terms of improving social intelligence components. Therefore, this study is aimed at understanding the effectiveness of an intervention programme based on Mindfulness for enhancing social intelligence among adolescent girls. Mindfulness-based interventions are special interventions designed to improve wellbeing among children. Participants were randomly divided into an experimental group and control group. The experimental group practiced mindfulness, one session per day for 60 hours, and each session lasting for two hours.

<sup>1</sup>Sachu M, Research Scholar, Department of Social Work, Rajagiri College of Social Sciences, Ernakulam, Kerala.

<sup>2</sup>Dr. Lizy P. J, Professor, Department of Social Work, Rajagiri College of Social Sciences, Ernakulam, Kerala.

<sup>3</sup>Dr. Akhila K P, Associate Professor, Department of Social work, Acharya

---

Institute of Graduate Studies Soladevnahalli, North Bangalore, Karnataka, India.

Results showed an increase in the improvement level of social intelligence in the experimental group with an effect size ranging from moderate to high, in comparison to the control group.

**Key Words:** Adolescents, Intervention, Mindfulness, Social Intelligence

### **Introduction**

Each adolescent is born with various skills and has unique abilities and potentialities. Still, they encounter various kinds of developmental issues and identity crises at this stage. Even the emotions and deeds of middle school students and early adolescents are unique and distinct. It is a fact that the brain of the teenager constantly changes during this stage of development, with a potential for positive change (American Academy of Child and Adolescent Psychiatry, 2015). Thus, there is no better phase than that of the adolescent stage to introduce positive habits to aid the teen in maturing in a wholesome way into a socially responsible and compassionate adult. It starts in the later childhood phase and continues into adulthood. Hence, it is not possible to accurately assign a specific age for the beginning and end of adolescence, and it differs from country to country and culture to culture. Chronologically, the age ranges are from 12 or 13 years to 18 or 19 years in India; this is the adolescent period, and in the case of girls, it begins about 1 year earlier than boys (KKHSOU, 2011). Adolescence is a very critical transitional stage of a girl's life, with acute crises in which her future is at stake.

Knowledge of the characteristics and behaviour of adolescence in every society depends on available information and research about its various perceptions and psychological, historical, sociological, and cultural backgrounds. Hence, conducting detailed research is vital to comprehend the different distressing issues of adolescence as a stage. The girl child grows up until the attainment of womanhood through different stages of the life cycle. In our



---

patriarchal society, a significant proportion of perpetrators of so-called social problems or acts of violence are men. If our efforts are focused more on imparting sound values to young adolescent girls, it will be more impactful for female survivors.

Developing social intelligence in teenage girls is critical to shaping their destiny in society. Mindfulness techniques will be extremely beneficial to this goal since they focus on the foundations of a grounded human being via efficient control of one's body, mind, and emotions. This research would aid in meeting specific critical needs of teenage girls in terms of enhancing social intelligence components such as social information processing, social skills, and social awareness. Social intelligence is defined as (i) the ability to understand others and (ii) the skill of successfully interacting with others. (Silvera, Martinussen, & Dahl, 2001). In this study, social intelligence is defined as an individual's ability to interpret and assess their social environment as well as develop meaningful relationships with others.

The purpose of social intelligence is to develop the social information process, enhance social awareness in the mind, and develop the social skills that we need to maintain appropriate relationships. The focus of the present study is to enhance the social intelligence of adolescent girls. This has been facilitated through an intervention study using a series of events involved in mindful breathing. Mindful breathing is a practice wherein one pays attention and nurtures acceptance through mindfulness and inculcates awareness in each moment of one's thoughts, feelings, emotions, and surrounding environment. This intervention would aim at enhancing the social intelligence aspects through mindful breathing.

Mindful breathing is a practice in which children are guided through a process of paying attention to their breath. This study is designed for adolescent girls, to help them understand the relevance of mindfulness in laying a healthy and strong base for their personality and for social living. The concept of

---

"mindfulness" is both theoretically and empirically connected with psychological well-being, personal growth, and a balanced life. Its components, such as awareness and nonjudgmental acceptance of the ongoing emotional experience of a person, are treated as potentially effective solutions against most of the common forms of psychological distress: rumination, anxiety, stress, fear, anger, and so on. Developing social intelligence in adolescent girls plays a very vital role in shaping their future in society. The technique of mindfulness is of immense help to this cause, as it focuses on the foundations of a grounded human being by way of effective control of one's body, mind, and emotions.

This research would aid in addressing certain important requirements of teenage girls in terms of increasing social intelligence components. Mindfulness training is a feasible intervention in a subset of adolescents and may improve behavioral and neurocognitive impairments (Zylowska et al., 2007). Through this intervention module, the researchers present the activity schedule and games that were chosen and framed for the girls. All these group activities help to observe their team effort, participation, concentration, learning process, stage fear, lack of confidence, and all other related components with regard to the factors influencing the development of social intelligence among them.

### **Literature Analysis**

The stage of adolescence is a crucial phase of human life because this is a transition period. Substantial shifts in physical, psychological, and intellectual development occur during this period. Individuals begin to think about the future choice of their profession, and their learning capacity is temporarily affected adversely (Chauhan 1983). Previous research in this area has revealed that a suitable environment accelerates the holistic development of adolescents into stable and productive human beings (Gopal, 2008). This indicates the relevance of social intelligence among adolescent girls.

---

Social intelligence can be defined as the capacity to effectively develop relationships and direct social environments; it is a varied and non-cognitive set of skills that exist in every social setting (Goleman, 2006). Chiodo & Chang (2000) analyzed that effective behaviour management relies mostly on the environmental setting and not much on the theoretical knowledge of behaviour change. Zirkel (2000) considered that social intelligence is closely linked to the personality and behaviour of everyone. People who have social intelligence are fully conscious of their environment and appreciate it. It makes them monitor and manage their emotions, feelings, and thoughts to make decisions about their goals in life.

According to research, adolescence is frequently recognised as a time of personal transitions and traumatic occurrences. Adolescents are more sensitive to the harmful consequences of stressful life experiences (Brown, Jonathan, & Millicent, 1986). There are a good number of intervention studies for adolescents built on theoretical perspectives of positive psychology, and there are intervention programmes for adolescents that apply Ryff's theoretical foundation of the Eudaimonic approach to psychological wellbeing. Wellbeing therapy (WBT), developed by Fava and Ruini (2003), and mindfulness interventions are a few other ways of intervening to improve wellbeing among youth.

Mindfulness activities are useful in increasing wellbeing in teens because they are a method of sustaining and focusing on present occurrences while adopting nonjudgmental attitudes (Cardaciotto et al. 2008). The mindfulness intervention programme of Joyce et al. (2010) resulted in reducing hyperactivity, attention deficits and fostering prosocial behavior. Researchers have found promising results in studies of mindfulness interventions for attention deficit hyperactivity disorder, bipolar disorder, panic disorder (Zylowska et al., 2008; Miklowitz et al., 2009; Weber et al., 2010; Williams et al., 2008; Kim et al., 2010), generalised anxiety disorder (Craigie, Rees, Marsh, & Nathan, 2008; Evans et al., 2008; Roemer, Orsillo, & Salters-Pedneault, 2008), eating disorders (Baer, Fischer, & Huss, 2005; Kristeller & Hallett, 1999), psychosis (Chadwick,

---

Taylor, & Abba, 2005), and alcohol and substance use problems (Bowen et al., 2006; Witkiewitz et al., 2005).

Many researches have been carried out to examine the use of mindfulness methods in various groups and settings, such as children (Bögels, Hoogstad, van Dun, de Schutter, & Restifo, 2008; Lee, Semple, Rosa, & Miller, 2008; Napoli, Krech, & Holley, 2005), adolescent psychiatric outpatients (Biegel, Brown, Shapiro, & Schubert, 2009), parents (Altmaier & Maloney, 2007; Bögels et al., 2008; Singh et al., 2006), school teachers (Napoli, 2004), elderly and their caregivers (Epstein-Lubow, McBee, Darling, Arney, & Miller, 2011; McBee, 2008; Smith, 2004), prison inmates (Bowen et al., 2006; Samuelson, Carmody, Kabat-Zinn, & Bratt, 2007), and socioeconomically disadvantaged individuals (Hick & Furlotte, 2010).

Mindfulness-based interventions are special interventions designed to improve wellbeing among youth. Various studies have reported that an increased practice of mindfulness methods would decrease the levels of anxiety, stress, anger, depression, rumination, difficulties in managing emotions, and intensity of psychotic delusions (Greeson, 2009; Keng, Smoski, & Robins, 2011; Luberto, 2013). Even though mindfulness practice does not have an immediate effect or show some discernible changes in behavior, particularly in distress tolerance in smokers, it has a significant impact on the number of cigarettes smoked (Luberto, 2015a). It is also seen to contribute considerably to the treatment of substance abuse disorders (Brewer et al.). For some, mindfulness methods can lessen anxiety and help reduce diabetes (Van Son et al., 2013) and hypertension (Hughes et al., 2013). This mindfulness intervention programme revealed a decrease in troubles like hyperactivity, attention difficulties, conduct problems and a gain in prosocial behavior.

Mindfulness technique has a close link with Vipassana meditation therapy, which is a popular Buddhist meditative practice, and it is the English translation of the Pali word Sati (Gunaratana & Gunaratana, 2011), which literally means to view and see things as

---

they are. A Vipassana meditation course usually lasts for the duration of 11 days, during which the practitioners contemplate and meditate for around 10 to 11 hours a day. Vipassana meditation has been modelled in various kinds of therapies in which fundamental methods have been incorporated and developed to form a holistic therapy that can be applied in various problem situations affecting human beings. It is assumed that everyone is mindful at some point and is totally aware of their sensations, perceptions, and emotions. Hence, mindful meditation practices guide one to have an increase in attention, which enables the person to view things the way he or she would like to view (Gunaratana & Gunaratana, 2011). The chief element of mindfulness is to focus on bodily sensations and then, objectively and non-judgmentally, allow them to pass. It is about knowing what one is doing while doing it that is the essence of mindfulness practice (Zinn, 1990). Mindfulness practice helps a person to be in the present and does not alienate one from who or what he or she is, but rather teaches them to attend to their feelings. This acts as a coping mechanism in a person to remove unrealistic thoughts and beliefs (Gunaratana & Gunaratana, 2011).

### **Theoretical Overview**

The Buddhist term *sati* is commonly translated in the western countries as 'mindfulness' and it is an adaptation and revision from the traditional Buddhist Vipassana practices as well as from other lineages like the Vietnamese Zen Buddhism from Thich Nhat Hanh. Anapanasati, or mindfulness of breathing, is part of the Buddhist practice of Vipassana, or insight meditation, and other Buddhist meditational practices, such as *zazen*. One of the main influencers of mindfulness in the West is John Kabat-Zinn. His mindfulness-based stress reduction programme (MBSR), developed in 1979 at the University of Massachusetts Medical School, has been used in several hospitals and health clinics in the past decades.

The major element of mindfulness practice is being conscious of one's own emotions and thoughts along with the physical

---

sensations and being non-judgmental towards them (Kabat-Zinn, 2003). In this study, intervention is defined as a process of intervening in social intelligence through mindful breathing. This is a practice wherein one pays attention and nurtures acceptance through mindfulness and inculcates awareness in each moment of one's thoughts, feelings, emotions, and surrounding environment. In this study, adolescent girls are guided through a process of paying attention to their breath.

Whatever happens in the world, the mind is affected by it, and we can understand through the mind. The process of respiration, during which air is inhaled into the lungs through the mouth or nose due to muscle contraction and then exhaled due to muscle relaxation is linked to the mind. The slower we breathe, the slower is the speed of our thoughts. Consequently, paying attention to our breathing and slowing it down means our thoughts will also slow down, giving us a feeling of calm. That is why there are meditational practices that focus only on abdominal breathing or mindful breathing. Mindfulness training typically involves breathing exercises. The core practice centers on cultivating focused attention on each inhalation and exhalation. This training programme is specifically designed for adolescent girls, to help them recognize the significance of mindfulness in shaping a balanced personality and fostering healthy social relationships. Through this study, participants are guided in developing emotional resilience and self-awareness, empowering them to grow into confident, compassionate individuals who can contribute meaningfully to society.

### **Objectives of the Study**

The major focus of the present study is to enhance the social intelligence of adolescent girls. This will be facilitated through an intervention study using a series of events involved in mindful breathing. During the intervention in this study, adolescent girls are guided through a process of paying mindful attention to the breath. Hence, the objective of the study was to facilitate social intelligence among adolescent girls through an intervention

---

programme based on mindful breathing. The specific objectives of the study were (i) to do a pre-assessment on the social intelligence components of adolescent girls institutionalized in the Government Children's Home for Girls at Kerala State (ii) to develop and implement a package for mindfulness among adolescent girls (iii) to do a post-assessment on the social intelligence components of adolescent girls after the implementation of the intervention pack. Hypotheses were developed accordingly.

### **Methodology**

A quasi-experimental pre-test and post-test control group research design was used by the researcher. The present study was conducted in the area under the administration of Women & Child Development at Kerala, with a sample from the Government Children's Home for Girls Kerala, India. A total of 50 adolescent girls (age range: 12–17 years) were selected for the purpose of this study, of whom 25 were in the experimental group and the other 25 were in the control group. The respondents of the research study were adolescent girls residing in the Government Children's Home (Girls). The type of sampling used is criterion-based simple random sampling based on the inclusion and exclusion criteria. The researchers conducted 30 days (60 hours) of continuous mindfulness training at concurrent intervals, and mindful entertainment activities were to be conducted among the 25 randomly selected adolescent girls. The same activities for the next 25 adolescent girls (non-experimental) were conducted to avoid any unethical nature of the study.

### **Tools Used**

In this study, social intelligence was assessed using the Tromsø Social Intelligence Scale (TSIS), developed by David H. Silvera, Monica Martinussen, and Tove I. Dahl (2000). The TSIS is a standardized self-report questionnaire comprising 21 items and was administered during both the pre- and post-test phases of the intervention. The scale evaluates social intelligence across three distinct subscales: (i) Social Information Processing (SIP), which

---

measures the ability to interpret verbal and nonverbal cues, empathize with others, and understand both explicit and implicit social messages; (ii) Social Skills (SS), which assesses essential interpersonal abilities such as active listening, assertive communication, and the capacity to initiate, maintain, and end relationships appropriately; and (iii) Social Awareness (SA), which captures the individual's ability to adapt behavior in alignment with contextual factors such as time, place, and social norms. The TSIS has demonstrated robust psychometric properties, with its reliability established through internal consistency, test-retest, and split-half methods. In a validation study involving 719 participants, the overall internal consistency, as measured by Cronbach's alpha, was reported to be 0.83, indicating a high level of reliability for the scale.

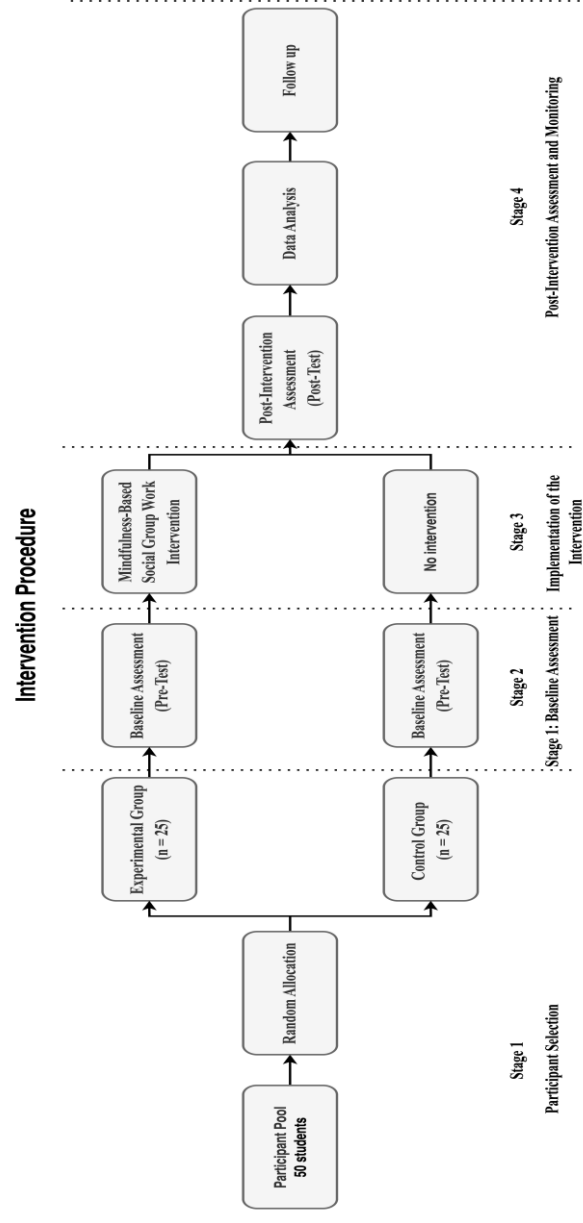
### **Development of Intervention Module**

The intervention was thoughtfully designed by integrating mindfulness principles with social group work methods, specifically tailored for adolescent girls at a government children's home. Grounded in the Vipassana tradition, it comprised 60 hours of structured training over 30 days, followed by a month of supervised practice. The core of the intervention was daily mindful breathing exercises, combined with orientation on moral conduct, guided meditation, storytelling, and group reflection. A set of ten carefully curated mindfulness-based group activities—such as Mind Art, Passing the Message, Ball and Twine, and Thought for the Day—were employed to enhance self-awareness, emotional regulation, attention, cooperation, and social intelligence. These activities emphasized silence, focus, and mutual respect, and were conducted in a structured two-hour morning session (6:30 to 8:30 a.m.). Each session was interactive and experiential, incorporating visual aids and a calm environment to support engagement. Participants worked in small groups under the guidance of trained facilitators, ensuring personalized attention and space for clarifying doubts. The program was developmentally appropriate and context-sensitive, aiming to create a safe, reflective space for adolescents to grow mentally, emotionally, and socially. All



elements of the intervention were rooted in empirical evidence and aligned with the psychological needs of the target group.

**Stages of Intervention Administration and Evaluation**



*Figure Procedural flow of the mindfulness-based intervention for enhancing social intelligence among adolescent girls*

---

**Stage 1: Participant Selection**

Before the initiation of the intervention, a total of 50 adolescent girls, aged between 12 and 17 years and residing at the Government Children's Home, were randomly assigned into two groups: an experimental group (n = 25) and a control group (n = 25). This random allocation was carried out to ensure the internal validity of the study and to facilitate a reliable comparison of outcomes between the two groups following the intervention.

**Stage 2: Baseline Assessment and Preparation**

The first stage involved administering the Baseline 1 assessment to both the experimental and control groups. Standardized and validated tools were used to measure the key psychological variables, with a particular focus on social intelligence. These pre-test scores served as a foundation for evaluating the effectiveness of the intervention. Following the assessment, preparations were made to implement a tailored mindfulness-based social group work program exclusively for the experimental group.

**Stage 3: Implementation of the Intervention**

The intervention for the experimental group consisted of a structured mindfulness training program totaling 60 hours, delivered over 30 consecutive days with daily two-hour sessions. Each session began with an overview of the ground rules and moral code of conduct, followed by guided mindful breathing practices under the supervision of a trained facilitator. The sessions also included creative group activities and mindfulness-based games designed to enhance self-awareness, emotional regulation, attentiveness, and cooperative behavior. Activities such as “Mind Art,” “Passing the Message,” and “Thought for the Day” were integrated into the sessions to foster the development of social intelligence. The program emphasized experiential learning and was conducted in smaller groups, with institutional staff supporting the trainers to ensure a safe and engaging environment.

**Stage 4: Post-Intervention Assessment and Monitoring**

Upon completion of the intervention, a post-training assessment

---

was conducted for both the experimental and control groups using the same standardized instruments. This stage aimed to evaluate the impact of the intervention by comparing post-test outcomes with the baseline scores. Additionally, the experimental group underwent a month of supervised mindfulness practice, during which trainers monitored the participants' application of mindfulness techniques in daily life, provided guidance, and addressed any challenges. This follow-up period was crucial in reinforcing the acquired skills and supporting long-term integration of the intervention's principles.

### **Results**

The study sample consisted of 50 adolescent girls aged between 12 and 17 years, all residing at the Government Children's Home for Girls, Kerala. The participants were divided equally into an experimental and a control group, with 25 girls in each. A majority of the participants (53.3%) were in the middle adolescence stage (15–17 years), while the remaining (46.7%) were in early adolescence. Religiously, the group comprised 58.3% Hindus, 40% Christians, and 1.7% Muslims. In terms of educational level, 78.3% were enrolled in high school, and 21.7% were pursuing higher secondary education. Notably, 83.3% of the participants came from broken families, highlighting their vulnerable socio-emotional context, while 13.3% and 3.3% belonged to joint and nuclear families, respectively. Linguistically, 75% spoke Malayalam as their mother tongue and 25% spoke Tamil, indicating a linguistically diverse group from the Kerala–Tamil Nadu cultural borderlands

*Table 1 Independent sample t-test of the baseline social intelligence score*

|      | Experimental Group | Control Group | t   | df | p    | Remark                                                                 |
|------|--------------------|---------------|-----|----|------|------------------------------------------------------------------------|
| Mean | 64.84              | 63.32         | .62 | 24 | >.05 | Not a significant difference in social Intelligence between two groups |
| SD   | 8.44               | 8.52          |     |    |      |                                                                        |

Table 1 presents the results of an independent samples t-test conducted to compare the baseline social intelligence scores between the experimental and control groups prior to the intervention. The mean social intelligence score for the experimental group was 64.84 (SD = 8.44), while the control group had a mean score of 63.32 (SD = 8.52). The calculated t-value was 0.62, which was not statistically significant at the 0.05 level. This indicates that there was no significant difference in the baseline social intelligence scores between the two groups. The similarity in pre-test scores confirms the initial equivalence of the groups, thereby strengthening the internal validity of the study. It ensures that any subsequent differences observed in the post-test phase can be more confidently attributed to the intervention rather than to pre-existing variations in social intelligence

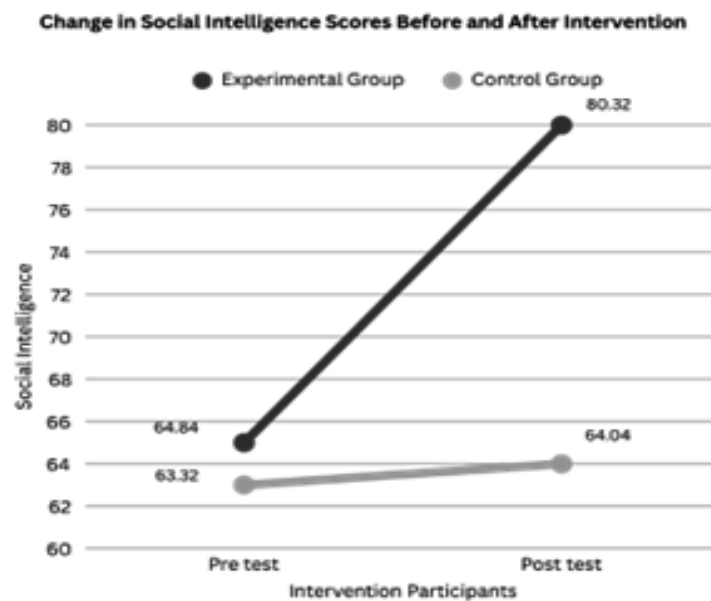
*Table 2 Paired t-test of Social Intelligence scores of experimental and control groups*

|                    | Pre-test |      | Post test |      | t      | df | p     | Remark                                                    |
|--------------------|----------|------|-----------|------|--------|----|-------|-----------------------------------------------------------|
|                    | Mean     | SD   | Mean      | SD   |        |    |       |                                                           |
| Experimental group | 64.84    | 8.44 | 80.32     | 7.76 | -10.95 | 24 | <.001 | Significant difference in pre -test and post test results |
| Control group      | 63.32    | 8.52 | 64.04     | 8.54 | -.648  | 24 | .523  | No significant results                                    |

The results of the paired t-test presented in Table 2 indicate a statistically significant improvement in social intelligence scores among participants in the experimental group following the

---

mindfulness-based intervention. The mean score in the experimental group increased from 64.84 (SD = 8.44) in the pre-test to 80.32 (SD = 7.76) in the post-test, yielding a highly significant t-value of -10.95 ( $p < .001$ ). In contrast, the control group showed only a marginal change in scores, from a pre-test mean of 63.32 (SD = 8.52) to a post-test mean of 64.04 (SD = 8.54), with a non-significant t-value of -0.648 ( $p = .523$ ). These findings clearly suggest that the intervention had a substantial positive impact on the social intelligence of the participants in the experimental group, whereas no such effect was observed in the control group. The significant gain in post-intervention scores among the experimental participants provides strong empirical support for the effectiveness of the mindfulness-based social group work approach in enhancing social intelligence among adolescents.



*Figure 2 Graphical representation of the change in social intelligence in experimental and control groups*

---

The figure 2 provides a visual representation that complements the results of the paired t-test discussed above. As shown, the experimental group demonstrates a pronounced increase in social intelligence scores from the pre-test to the post-test, indicating a significant positive shift following the 60-hour mindfulness-based intervention. In contrast, the control group shows only a minimal increase, suggesting little to no change over the same period.

This clear divergence in the trajectories of the two groups visually reinforces the statistical finding that the intervention had a substantial impact. The sharp upward slope in the experimental group line corresponds with the statistically significant difference observed in the paired t-test ( $t = 6.9, p < .05$ ), confirming that the gains in social intelligence were not due to chance. Meanwhile, the nearly flat line representing the control group reflects the non-significant results of their t-test, further validating that no meaningful improvement occurred without the intervention. Together, the statistical analysis and this visual figure offer strong, converging evidence for the effectiveness of the mindfulness-based intervention in enhancing social intelligence among adolescent girls.

### **Discussion**

The researchers have observed a remarkable change in the respondents of the experimental group residing in the Government Children's Home for Girls. They felt and expressed to the researchers that they had become more intimate and collaborative with each other than they were before the sessions. Kabat-Zinn had the opinion that mindfulness practise makes a person learn the art of not doing. Here, non-doing does not mean becoming lazy or remaining idle; it means acting and letting things evolve as they should without having any control over them. Mindfulness enhances the levels of patience in the participants and decreases the level of restlessness, anxiety, and agitation in the practitioners (Zinn, 1994). Therefore, it is right to say that the mental health of a person is achieved by avoiding the extremes of suppression and expression. The main part of mindfulness is the concept of letting

---

go. (Goenka, 1997). These findings were revealed using a standard questionnaire administered to the adolescent girls at various planned stages of the study. The content analysis of the feedback from the respondents reveals that the students benefited from the mindfulness training programme in several important ways. They reported that they were able to focus and concentrate better on their studies. They can manage their negative emotions like anger and have become increasingly positive and calmer than they were before the training began. The results seem to be more prominent in the objective analysis. The following conclusions were drawn from the results.

1. Mindfulness could be effectively taught to adolescent girls and it did have an impact on the groups studied.
2. In the within-group analysis across conditions for the experimental group changed significantly on social intelligence as the conditions progressed.
3. In the within-group analysis across conditions for the control group, expressed no significant change after the usual training programme.

Children deserve to experience life positively, and society has a duty to provide them with the skills and strategies to manage life's more challenging moments. Mindfulness may be one way to provide this. The present moment is filled with joy and happiness. If you are attentive, you will see it. (Hanh, 1991)

### **Ethical Considerations**

The ethical considerations in this research serve as a framework for responsible, considerate, and equitable study practices. These guidelines aid in maintaining both the participants' safety and the integrity of the study process. In this research the concerned scale developers formally authorize and acknowledge the researcher. The District Child Protection Officer (DCPO) and the Superintendent of the Government Children's Home were among the personnel who provided the researcher with written informed consent as part of ethical considerations. Authenticity and

---

confidentiality were ensured throughout the entire research procedure. And all the information gathered was solely utilized for research.

### **Conclusion**

The findings of this study strongly support the effectiveness of mindfulness-based interventions in enhancing social intelligence among adolescent girls residing in institutional care. Through a structured 60-hour programme grounded in mindful breathing and social group work, participants in the experimental group demonstrated a statistically significant improvement in their social intelligence, as evidenced by both paired and independent samples t-test results. The intervention not only enhanced their abilities in social information processing, social awareness, and interpersonal skills, but also fostered emotional resilience and self-regulation. In contrast, the control group exhibited no meaningful change, highlighting the distinct impact of the intervention.

Qualitative feedback from participants further reinforced these outcomes, revealing increased cooperation, emotional control, and attentiveness. The intervention's grounding in the Vipassana tradition, combined with experiential learning and a safe, supportive environment, proved developmentally appropriate and context-sensitive for the target population. This study affirms that mindfulness can be systematically taught and effectively integrated into psychosocial development programmes for adolescents. Given its potential to build emotional strength, social adaptability, and psychological well-being, mindfulness-based training should be considered a vital component of adolescent care and education, particularly for those in vulnerable settings.

### **Reference**

- Akaike, H. (1987). Factor analysis and Elkind, D. (1967). Egocentrism in adolescence. *Child Development*, 38, 1025–1034.
- Arghode, V. (2013). Emotional and social intelligence competence: Implications for instruction. *International Journal of Pedagogies & Learning*, 8(2), 66–77.



---

Biegel, G. M., Brown, K. W., Shapiro, S. L., & Schubert, C. M. (2009). Mindfulnessbased stress reduction for the treatment of adolsecent psychiatric outpatients: A randomized clinical trial. *Journal of Consulting andClinical Psychology*, 77(5), 855-866.

Bogels, S., Hoogstad, B., van Dun, L., de Schutter, S., & Restifo, K. (2008). Mindfulness training for adolescents with externalizing disorders and their parents. *Behaviouraland Congnitive Psychotherapy*, 36, 193-209.

Crowne, K. A. (2009). The relationships among social intelligence, emotional intelligence and cultural intelligence. *Organization Management Journal*, 6(3), 148–163.

Creswell, J. D. (2017). Mindfulness Interventions. *Annual Review of Psychology*, 68(1), 491–516. doi: 10.1146/annurev-psych-042716-051139.

Crockett, Lisa J. and Crouter, Ann C., "Pathways through Adolescence: An Overview" (1995). Faculty Publications, Department of Psychology. Paper 240.

Danish, Steven J. (1996). —Interventions for enhancing adolescents' lifeskills.‡ *Humanistic Psychologist*. Vol. 24(3). pp. 365-381.

D.H. Silvera, M. Martinussen & T. I. Dahl. (2001). The Tromsø Social Intelligence Scale, a self-report measure of social intelligence. *Scandinavian Journal of Psychology*, 42, 313- 319.

Elkind, D., & Bowen, R. (1979). Imaginary audience behavior in children and adolescents. *Developmental Psychology*, 15, 38–44.

Fulton, P. R. (2013). Mindfulness as Clinical Training. In C. K. Germer, R. D. Siegel & P. R. Fulton (Eds.), *Mindfulness and*

---

Psychotherapy (2nd ed., pp. 59-75). New York, NY: Guilford Press.

Germer, C. K., Siegel, R. D., & Fulton, P. R. (Eds.). (2013). *Mindfulness and Psychotherapy* (2nd ed.). New York, NY: The Guilford Press.

Gilbert, P. (2009). *The Compassionate Mind*. London: Constable.

Goleman, D. (2006). *Social intelligence*. New York: Bantam Books, 2006.

Goleman, D., & Davidson, R. J. (Eds.). (1979). *Consciousness: The Brain, States of Awareness, and Alternate Realities*. New York, N. Y.: Ardent Media.

Grabovac, A. D., Lau, M. A., & Willett, B. R. (2011). Mechanisms of mindfulness: A buddhist psychological model. *Mindfulness*, 2(3), 154-166.

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness based stress reduction and benefits: A meta-analysis. *Journal of Psychosomatic Research*, 57, 35-43.

Gunaratana, B. (2011). *Mindfulness in plain English*. Somerville, MA: Wisdom Publications.

HANH, T. N. (2010, march ). *mindful-living-thich-nhat-hanh-on-the-practice-ofmindfulness-march-2010*. Retrieved april 2019, from lion's roar: <https://www.lionsroar.com/mindful-living-thich-nhat-hanh-on-the-practice-ofmindfulness-march-2010/>

Hayes, S., Follette, V., & Linehan, M. (Eds.). (2004). *Mindfulness and acceptance: Expanding the cognitive-behavioral tradition*. New York, NY: Guilford Press.

Hope, D. A., & Heimberg, R. G. (1988). *Public and private self-*

---

consciousness and social phobia. *Journal of Personality Assessment*, 52, 626–639.

Javier Omar Trevino.(2014), *Emotional and Social Intelligence: A Study Of Interpersonal, Intrapersonal, Social Awareness, And Social Facility Skills Of Information Technology Professionals In Higher Education*: Texas A&M University- Corpus Christi, Texas.

Kabat-Zinn, J. (2013). *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. New York: Bantam Dell. ISBN 978-0345539724.

Low, G. R. & Nelson, D. B. (Spring 2004). Emotional intelligence: Effectively bridging the gap between high school and college. *Texas Study of Secondary Education*, 13(2).

McIntosh, W. D. (1997). East meets West: Parallels between Zen Buddhism and social psychology. *International Journal for the Psychology of Religion*, 7, 37–52.

Mendelson, T., Greenberg, M. T., Dariotis, J. K., Gould, L. F., Rhoades, B. L., & Leaf, P. J. (2010). Feasibility and preliminary outcomes of a school-based mindfulness intervention for urban youth. *Journal of Abnormal Child Psychology*, 38, 985-994.

Raja radhi (2002) *A Study of Vipassana Meditation on Adolescent Behavior Pattern*: Thesis submitted to the University of Madras.

Shapiro, S. L., & Carlson, L. E. (2009). *The art and science of mindfulness*. Washington, DC: American Psychological Association.

Wisner, B. L., Jones, B., & Gwin, D. (2010). School-based meditation practices for adolescents: A resource for strengthening self-regulation, emotional coping, and self-esteem. *Children & Schools*, 32(3), 150-159.

Zenner, C., Hermleben-Kurz, S., & Walach, H. (2014).

---

Mindfulness-based interventions in schools-a systematic review and meta-analysis. *Frontiers in Psychology*, 5, 1-20.

Zoogman, S., Goldberg, S. B., Hoyt, W. T., & Miller, L. (2014). Mindfulness interventions with youth: A meta-analysis.

## A BIBLIOMETRIC ANALYSIS ON COMMUNITY PARTICIPATION IN PUBLIC HEALTH

Shaista<sup>1</sup>, Dr. Naved Jamal<sup>2</sup>

### ABSTRACT

Numerous investigations have assessed the evolving landscape of research on Community Participation in Public Health. This research examines scholarly articles published between 1970 and 2023. It uses bibliometric methods to identify key themes, intellectual connections, and conceptual frameworks within this body of work. The study explores various aspects of scientific production, including the most productive researchers, highly influential papers, relationships between keywords, and citation patterns. The keywords "Community Participation," "Community Engagement," or "Community Involvement" and "Public Health" were used to identify 3267 English-language articles and review articles. VOSviewer was employed for topic grouping and performance analysis. 2022 was the most productive year with 385 articles. Top cited article is "Community-based participatory research contributions to intervention research: The intersection of science and practice to improve health equity." This study uniquely analyzes community participation in public health by assessing research performance and identifying distinct research clusters. It provides valuable insights for current and future research.

**Keywords:** Bibliometric Analysis, Community Engagement, Community Participation, Health, Public Health

### 1.Introduction

Community participation is the direct participation of people in actions or decision-making(Hoon Chuah et al., 2018).

Shaista, Research Scholar, Department of Political Science, Jamia Millia Islamia, New Delhi-110025, India

Dr. Naved Jamal, Professor, Department of Political Science, Jamia Millia Islamia, New Delhi-110025, India

---

In recent decades, community participation in public service delivery has witnessed a marked increase, and now pervades nearly every facet of public service, ranging from needs assessments to feedback mechanisms. The significance of community participation is particularly pronounced in the public health domain. Individuals possess a unique understanding of their own healthcare needs, rendering government efforts alone insufficient for effective public health management and development (Draper & Rifkin, 2020). Active participation from the very population affected by decisions is an indispensable requirement. A contemporary trend in policymaking emphasizes a bottom-up approach, and this shift is increasingly evident in the realm of health policy. Recognizing the valuable insights of local communities, health policy is prioritizing their involvement (Israel et al., 1998a). This paradigm shift fosters a more inclusive approach, centered on the active participation of individuals.

International organizations and declarations also strongly emphasize community participation in health development. The Alma-Ata Declaration of 1978, a landmark in public health, underscored the importance of people's participation in primary healthcare to ensure its accessibility for all. It explicitly stated that "the people have a right and duty to participate individually and collectively in the planning and implementation of their health care" (Alma-Ata, 1978, n.d.). Furthermore, the World Health Organization (WHO) report on primary healthcare emphasizes "empowering individuals, families, and communities to take charge of their own health" (Primary Health Care Measurement Framework and Indicators, 2021). This shift in perspective recognizes people not merely as users of public health services, but as active members in improving and developing public health systems.

In 2016, the World Health Assembly adopted a framework outlining five strategies for integrated people-centered health services, all requiring local adaptation. "One key strategy is the engagement and empowerment of people and

---

communities”(Framework on Integrated, People-Centred Health Services, 2015). Community participation can significantly enhance health outcomes for the entire population. It facilitates the development of effective early detection services and early warning systems. The crucial role of communities during the COVID-19 pandemic serves as a powerful example. "(Gilmore et al., 2020). Historically, communities have played significant roles in public health during crises and in the ongoing development of public health systems. It is essential to remember that public health focuses on the well-being of the entire population, not just individual cases. Involving communities in public health development offers numerous benefits(Cabaj et al., 2019). It empowers individuals, ensures their participation, leverages local resources, facilitates bottom-up planning, enables valuable feedback and analysis from the community, and ultimately reduces the burden on government resources.

Many countries have taken initiatives to ensure community participation in public health, including China, Australia, Nigeria, Ghana, Iran, Scotland, South Africa, Brazil, and India(Hoon Chuah et al., 2018). People's involvement in healthcare can reduce health disparities (Hoon Chuah et al., 2018). It is a significant social determinant of health, exerting a profound impact on the achievement of universal coverage of healthcare programs. While involving the community effectively and determining the appropriate level of their involvement can be challenging, community participation in healthcare development has demonstrated positive outcomes in diverse settings(Draper & Rifkin, 2020). This emerging trend in public health has garnered significant attention from academics, organizations, and institutions. As an emerging area of academic inquiry, community participation in public health has been the subject of numerous studies. This extensive research has significantly expanded the body of literature in this field.

---

Various national and international organizations and institutions across the globe actively contribute to research and implementation efforts related to community participation in public health. The literature on this topic draws from diverse fields, including medicine, healthcare, arts, and humanities. This diverse literature fosters a nuanced understanding of community participation in public health. Some studies have demonstrated that community participation enhances the incorporation of local perspectives, empowers local communities, and generates additional resources for government initiatives. However, the growing volume of literature on this topic presents a significant challenge in terms of comprehensive analysis. To comprehensively address this challenge, a systematic literature review is imperative.

The latest systematic review on this topic was conducted by Yuan et al. in their 2021 article titled “Community engagement in public health: a bibliometric mapping of global research”. This study comprehensively analysed a vast number of papers, employing social network analysis, co-citation analysis, co-occurrence clustering, and burst detection bibliometric analyses (Yuan et al., 2021). However, a notable limitation of this research was its sole reliance on the Web of Science database, thereby excluding the comprehensive coverage offered by Scopus. Scopus is a top-tier, curated abstract and citation database. It offers extensive global coverage of scholarly works like journals and books, ensuring high data quality through rigorous content selection, independent review, and continuous quality checks. Additionally, Scopus provides accurate author and institutional profiles, making it a highly trusted source for significant bibliometric analyses (Baas et al., 2020). This exclusion critically impacts the assessment of the research field's true breadth and the quality of its contributions. Consequently, this research gap strongly mandates a comprehensive bibliometric analysis leveraging Scopus data. Such an endeavor promises to provide invaluable insights into nascent trends, delineate critical knowledge deficits, and illuminate promising avenues for future inquiry within this rapidly



---

developing field. Therefore, the present study seeks to answer the following research questions:

**R.Q.1:** What is the past research track and future research direction of Community participation in public health?

**R.Q.2:** Which is the author, article, journal, institution, and country that has made prominent contributions in the area of community participation in public health?

**R.Q.3:** Which studies are most frequently cited and which theme clusters could be formed in the field of community participation in public health?

This study aims to serve as a foundational resource for emerging scholars within the domain of community participation in public health. By offering a comprehensive synthesis of seminal publications and distinguished researchers in the field, this study endeavours to equip aspiring researchers with the requisite knowledge to effectively conduct and navigate their research pursuits.

## **2. Method**

This study integrates concepts from the fields of community participation and public health, employing cross disciplinary approach to select appropriate terminology.

To fully investigate the relationship between community participation and public health, it was important to include relevant keywords from each area. The keyword pairs that are specifically used to choose documents and data extractions from Scopus are listed in Table 1. A bibliometric study, in contrast to conventional thorough evaluations of the literature, is excellent at offering information in a variety of fields with sizable amounts of bibliographic and bibliometric data. According to Donthu et al. (2021) “bibliometric studies that are well done can build firm foundations for advancing a field in novel and meaningful ways—it enables and empowers scholars to (1) gain a one-stop overview, (2) identify knowledge gaps, (3) derive novel ideas for investigation, and (4) position their intended contributions to the

field”(Donthu et al., 2021) This study used quantitative methodologies to analysis data, text and information. The bibliometric study can contribute to theory development and practical use of knowledge.

## 2.1 Data Collection: Through search term

The Scopus database was used as the primary source of data extraction. Scopus is one of the leading databases, known for research material in reputed journals. A systematic procedure was used to arrive at 3267 articles (Table 1). The terms used were "Community Participation" or "Community Engagement" or "Community Involvement" and “Public Health” to include reviews and articles written in English from 1970 to 2023.

## 2.2 Extraction criteria

**Table 1: Criteria for Including and Excluding an Article**

| Stage | Filtering criteria                                                                                                          | Eliminated | Accepted |
|-------|-----------------------------------------------------------------------------------------------------------------------------|------------|----------|
|       | Search engine: Database: “Scopus”                                                                                           |            |          |
|       | Date of Search: “18 -08- 2024”                                                                                              |            |          |
|       | Period of Publications: 1970–2023                                                                                           |            |          |
| 1     | Initial search result: ("Community Participation" OR "Community Engagement" OR “Community Involvement” AND "Public Health") |            | 4422     |
| 2     | Year (1970-2023)                                                                                                            | 314        | 4108     |
| 3     | Subject domain: “ Medicine, Social Sciences, Multi –Disciplinary, Psychology, Arts and Humanities and Health Professionals” | 265        | 3843     |
| 4     | Document type: "Article “&”Review"                                                                                          | 418        | 3425     |
| 5.    | Publication Stage: Final                                                                                                    | 14         | 3411     |
| 6.    | Language selection : “Include documents published in English only”                                                          | 144        | 3267     |

Source: Prepared by the Researchers

## 2.3 Search Results

The articles were searched on the Scopus database with the use of selected terms. Initially, a total of 4422 articles were extracted from the database. Subsequently, the researcher used criteria based on publication year, resulting in 4108 articles identified within the selected period of 1970 to 2023. This period was selected to

---

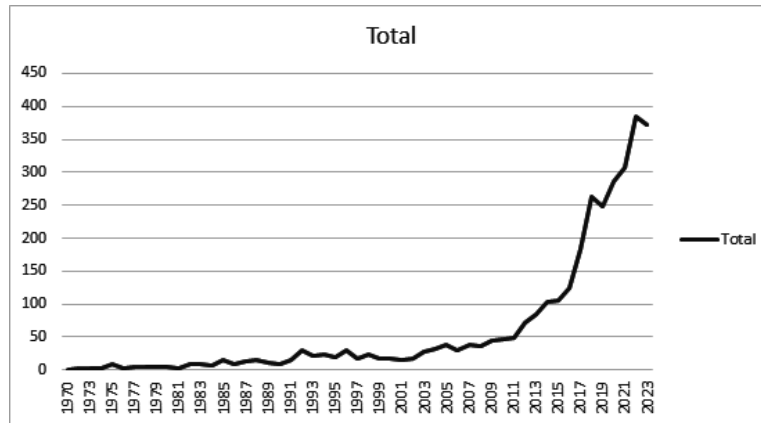
capture the evolving research landscape, showcasing its trajectory from the initial publication to its current state. The seminal article in this field, "Community Participation and Control: Addressing Racism in Healthcare" (1970) by Cornely P.B., marked a significant turning point in the discourse. This groundbreaking work shifted the focus towards community empowerment and self-determination as crucial strategies to combat systemic racism within the healthcare system (Cornely, 1970). Thereafter, the filtered articles by disciplines, resulting in 3843 articles from the disciplines of Medicine, Social Sciences, Multi-Disciplinary, Psychology, Arts and Humanities and Health Professionals (See table 1). Following that, on the next stage, only 'article' and 'review article' were considered for this study, and a total of 3425 records were extracted after this filter. Further, only published documents were included in the study, resulting in 3411 documents. Finally, an English language filter was applied, providing a total of 3267 articles and review articles for analysis.

#### **2.4 Use of Software**

The study used VOSviewer to conduct detailed analyses (Van Eck & Waltman, 2010). This analysis aimed to identify key contributors within the field of community participation in public health and uncover evolving trends in research topics and collaborative networks over time (Donthu et al., 2021). It aimed to reflect upon past research and inform future investigations. Bibliometric maps were generated using VOSviewer, a user-friendly software developed by van Eck & Waltman. This software facilitates the visual representation of research data, thereby enhancing the accessibility and interpretability of the findings presented in following sections (Van Eck & Waltman, 2010).

### **3. Analysis and Results**

**Figure 1: Year Wise Documents 1970-2023**



Source: Scopus data Base

Figure 1 depicts research work trend on the area community participation and public health from 1970 to 2023. In the year 2022 total 385 papers published makes this year the most productive year in this domain. Other years with a high number of articles published include 2023 (373), 2021(308), 2020 (287). A significant increase in the volume of published works has been observed over the past 15 years, with more than 200 papers published annually between 2015 and 2023. The overall number of articles published in the past decade has risen sharply, despite occasional decline in some years.

### 3.1 Top Authors on the Basis of Total Publications

| S.No. | Author      | TP | TC  | Source title                                                               | Cited by | Year |
|-------|-------------|----|-----|----------------------------------------------------------------------------|----------|------|
| 1.    | Wells, K.B. | 14 | 403 | Health Affair                                                              | 27       | 2006 |
|       |             |    |     | Journal of General Internal Medicine                                       | 155      | 2013 |
|       |             |    |     | American Journal of Public Health                                          | 78       | 2013 |
|       |             |    |     | Psychiatric Clinics of North America                                       | 36       | 2013 |
|       |             |    |     | Disaster Medicine and Public Health Preparedness                           | 07       | 2016 |
|       |             |    |     | International Journal of Environmental Research and Public Health          | 18       | 2017 |
|       |             |    |     | International Journal of Environmental Research and Public Health          | 20       | 2018 |
|       |             |    |     | International Journal of Environmental Research and Public Health          | 10       | 2018 |
|       |             |    |     | Ethnicity and Disease                                                      | 05       | 2018 |
|       |             |    |     | Ethnicity and Disease                                                      | 05       | 2018 |
|       |             |    |     | Ethnicity and Disease                                                      | 14       | 2018 |
|       |             |    |     | Ethnicity and Disease                                                      | 16       | 2018 |
|       |             |    |     | Ethnicity and Disease                                                      | 26       | 2019 |
|       |             |    |     | International Journal of Environmental Research and Public Health          | 02       | 2022 |
|       |             |    |     | American Journal of Public Health                                          |          |      |
|       |             |    |     | Progress in Community Health Partnerships: Research, Education, and Action |          |      |

|    |                  |    |     |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                 |                                                                                      |
|----|------------------|----|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 2  | Legido-Quigley H | 11 | 371 | PLoS ONE<br>Social Science and Medicine<br>PLoS ONE<br>The BMJ<br>The BMJ<br>The BMJ<br>The BMJ<br>BMJ Global Health<br>Globalization and Health<br>The Lancet Global Health<br>Social Science and Medicine<br>Frontiers in Public Health                                                                                                                                                                                       | 56<br>26<br>209<br>15<br>13<br>16<br>08<br>09<br>04<br>13<br>02 | 2017<br>2018<br>2019<br>2021<br>2021<br>2021<br>2022<br>2022<br>2023<br>2023<br>2023 |
| 3. | Schoch-Spana M   | 9  | 375 | Biosecurity and Bioterrorism<br>Health security<br>Journal of Public Health Management and Practice<br>Journal of Public Health Management and Practice<br>Journal of Public Health Management and Practice<br>Chest<br>Preventive Medicine Reports<br>Vaccine<br>Social Science and Medicine                                                                                                                                   | 29<br>0<br>15<br>08<br>07<br>163<br>07<br>142<br>04             | 2013<br>2015<br>2015<br>2018<br>2018<br>2019<br>2020<br>2021<br>2022                 |
| 4. | South, J         | 9  | 160 | Health Promotion International<br>Health Education Research<br>Perspectives in Public Health<br>Public Health<br>Scandinavian Journal of Public Health<br>Journal of Epidemiology and Community Health<br>Health Promotion International<br>Journal of Public Health (United Kingdom)<br>Journal of Public Health (United Kingdom)                                                                                              | 14<br>26<br>06<br>10<br>16<br>51<br>27<br>09<br>01              | 2012<br>2012<br>2013<br>2013<br>2014<br>2014<br>2019<br>2019<br>2023                 |
| 5. | Tucker J.D.      | 9  | 137 | BMJ Open<br>Trials<br>BMC Public Health<br>BMC Public Health<br>Journal of Medical Internet Research<br>Sexually Transmitted Infections<br>Current HIV/AIDS Reports<br>JMIR Research Protocols<br>BMC Public Health                                                                                                                                                                                                             | 21<br>24<br>16<br>12<br>12<br>05<br>35<br>06<br>06              | 2016<br>2017<br>2017<br>2017<br>2018<br>2019<br>2019<br>2020<br>2022                 |
| 6. | Chandra, A.      | 8  | 199 | Archives of Pediatrics and Adolescent Medicine<br>Journal of Public Health Management and Practice<br>American Journal of Public Health<br>International Journal of Environmental Research and Public Health<br>Disaster Medicine and Public Health Preparedness<br>International Journal of Environmental Research and Public Health<br>International Journal of Environmental Research and Public Health<br>BMC Public Health | 13<br>15<br>78<br>41<br>07<br>18<br>16<br>11                    | 2008<br>2013<br>2013<br>2014<br>2016<br>2017<br>2018<br>2020                         |
| 7  | Haldane V        | 8  | 349 | PLoS ONE<br>Social Science and Medicine<br>PLoS ONE<br>The BMJ<br>The BMJ<br>The BMJ<br>BMJ Global Health<br>Social Science and Medicine                                                                                                                                                                                                                                                                                        | 56<br>26<br>209<br>15<br>13<br>16<br>08<br>06                   | 2017<br>2018<br>2019<br>2021<br>2021<br>2021<br>2022<br>2022                         |

|     |            |   |     |                                                                            |     |      |
|-----|------------|---|-----|----------------------------------------------------------------------------|-----|------|
| 8.  | Jones F.   | 8 | 267 | Health Education and Behavior                                              | 63  | 2013 |
|     |            |   |     | American Journal of Public Health                                          | 78  | 2013 |
|     |            |   |     | Health Education and Behavior                                              | 63  | 2013 |
|     |            |   |     | Psychiatric Clinics of North America                                       | 36  | 2013 |
|     |            |   |     | Ethnicity and Disease                                                      | 10  | 2018 |
|     |            |   |     | Ethnicity and Disease                                                      | 05  | 2018 |
|     |            |   |     | American Journal of Public Health                                          | 10  | 2019 |
|     |            |   |     | Progress in Community Health Partnerships: Research, Education, and Action | 02  | 2022 |
| 9.  | Allender S | 7 | 278 | International Journal of Environmental Research and Public Health          | 85  | 2016 |
|     |            |   |     | Obesity Reviews                                                            | 41  | 2018 |
|     |            |   |     | Trials                                                                     | 12  | 2020 |
|     |            |   |     | BMJ Open                                                                   | 11  | 2022 |
|     |            |   |     | Public Health Research and Practice                                        | 118 | 2022 |
|     |            |   |     | Frontiers in Public Health                                                 | 10  | 2023 |
|     |            |   |     | JMIR Research Protocols                                                    | 01  | 2023 |
| 10. | Cheah P.Y. | 7 | 130 | International Health                                                       | 47  | 2010 |
|     |            |   |     | PLoS ONE                                                                   | 29  | 2018 |
|     |            |   |     | American Journal of Tropical Medicine and Hygiene                          | 27  | 2018 |
|     |            |   |     | PLoS ONE                                                                   | 09  | 2020 |
|     |            |   |     | PLoS ONE                                                                   | 12  | 2021 |
|     |            |   |     | International Health                                                       | 02  | 2023 |
|     |            |   |     | Malaria Journal                                                            | 04  | 2023 |
|     |            |   |     | Wellcome Open Research                                                     |     |      |

Source: Scopus data base

This part provides significant perspectives on prominent personalities in the community participation in public health domain, scrutinising their influence from the perspectives of publication productivity and citation criteria (See the table no.2). The most prominent author in this field 'Wells, K.B.' stands out with 14 publications and a notable 403 total citations. The second author who contribute the highest number of articles is 'Legido-Quigley H' with a total of 11 articles published and total citation are 371. Third among notable writers is Schoch-Spana M who has nine articles with 371 citations.

### 3.2. Top Authors, Organisations and Countries based on Total Citation

**Table 3: Prominent Authors, Organisations and Countries**

| TC   | Author                | TP | TC   | Organization                                                                                                                                                      | TP | TC    | Country        | TP   |
|------|-----------------------|----|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------|----------------|------|
| 1543 | wallerstein, nina     | 7  | 1393 | department of health services, school of public health, university of washington, seattle, united states                                                          | 1  | 32313 | united states  | 1459 |
| 1393 | duran, bonnie         | 1  | 1393 | master of public health program, school of medicine, university of new mexico, albuquerque, united states                                                         | 1  | 12695 | united kingdom | 495  |
| 1251 | minkler, Meredith     | 4  | 908  | center for clinical epidemiology and biostatistics, school of medicine, university of pennsylvania, philadelphia, pa 19104 -6021, united states                   | 1  | 6300  | Canada         | 250  |
| 908  | kumanyika, shiriki k. | 1  | 908  | center for health policy research, school of public health, university of california, los angeles, ca 90024, united states                                        | 1  | 6007  | Australia      | 302  |
| 908  | ortega, alexander n.  | 1  | 908  | center for healthier children, families and communities, school of public health, university of california, los angeles, ca 90024, united states                  | 1  | 3717  | Switzerland    | 108  |
| 908  | yancey, antronette k. | 1  | 908  | department of health services and center to eliminate health disparities, school of public health, university of california, los angeles, ca 90095, united states | 1  | 3180  | India          | 166  |
| 891  | leyden, kevin m.      | 1  | 908  | division of cancer prevention and control research, jonsson comprehensive cancer center, university of california, los angeles, ca 90095, united states           | 1  | 2482  | south Africa   | 138  |
| 789  | catalani, carcia      | 1  | 891  | department of political science, west virginia university, morgantown, wv 26506-6317, united states                                                               | 1  | 1994  | Netherlands    | 78   |
| 777  | israel, barbara a.    | 3  | 789  | university of california, berkeley, united states                                                                                                                 | 1  | 1774  | China          | 69   |
| 676  | griffin, simon j.     | 1  | 676  | Medical research council epidemiology unit, institute of metabolic sciences, addenbrooke's hospital, cambridge cb2 0qq, united kingdom                            | 1  | 1471  | Kenya          | 60   |

Datasource: Vosviewer

Table 3 presented prominent authors, countries and organization in the field of community participation in public health on the basis of their total citations and publication. The most prominent and impactful writer in the area of community participation in public health is Wallerstein, Nina with 1543 citations and 7 publications, followed by Duran, Bonnie with 1393 citations and 1 publication, and Minkler, Meredith, with 1251 citation and 4 publications.

Similarly, top ranking contributing organizations in the field of community participation in public health are “Department of Health Services, School of Public Health, University of Washington, Seattle”, and “Master of Public Health Program, School of Medicine, University of New Mexico, Albuquerque, United States”. Each of these organizations has 1393 total citations

---

and 1 publication. Followed by center for “Clinical Epidemiology and Biostatistics, School of Medicine, University of Pennsylvania, Philadelphia”; “Center for Health Policy Research, School of Public Health; Center for Healthier Children, Families and Communities, School of Public Health”; “Department of Health Services and Center to Eliminate Health Disparities, School of Public Health”; “Division of Cancer Prevention and Control Research, Jonsson Comprehensive Cancer Center, University of California, Los Angeles, United States”. Each of these organizations has 908 total citations and 1 publication.

Similarly, the most leading nation is United States with 32313 TC from 1459 TP followed by United Kingdom with 12695 TC from 495 TP. Other countries are Canada with 6300 TC and 250 TP and Australia with 6007 TC and 302 TP.

### **3.3 Most Influential Journals**

Table 4 shows the most prominent journal of research on Community Participation in Public Health based on their TC. The most important source for research on Community Participation in Public Health is “*American Journal of Public Health*,” with 3352 citations and 33 published documents, followed by the “*social science and medicine*” with 2969 citations from 61 documents. The third most productive journal is “*BMC Public Health*”, which contributed 92 articles with 2275 TC, followed by “*international journal of environmental research and public health*” with 1701 total TC and 142 total publications. This journal has high number of documents in the respected area of the study.



---

**Table 4: Most Influential Journals**

| TC   | Source                                                            | TP  | Total Link Strength | Publisher                                             |
|------|-------------------------------------------------------------------|-----|---------------------|-------------------------------------------------------|
| 3352 | american journal of public health                                 | 33  | 6                   | American Public Health Association                    |
| 2969 | social science and medicine                                       | 61  | 5                   | Elsevier                                              |
| 2275 | bmc public health                                                 | 92  | 2                   | BioMed Central                                        |
| 1701 | international journal of environmental research and public health | 142 | 8                   | MDPI (Multidisciplinary Digital Publishing Institute) |
| 1682 | annual review of public health                                    | 10  | 7                   | Annual Reviews                                        |
| 1564 | health promotion international                                    | 49  | 6                   | Oxford University Press                               |
| 1375 | plos one                                                          | 75  | 12                  | Public Library of Science                             |
| 1232 | bulletin of the world health organization                         | 17  | 8                   | World Health Organization                             |
| 1232 | health education and behavior                                     | 17  | 6                   | SAGE Publications                                     |
| 1161 | acta tropica                                                      | 22  | 10                  | Elsevier                                              |
| 926  | plos neglected tropical diseases                                  | 31  | 12                  | Public Library of Science                             |
| 819  | the lancet                                                        | 8   | 0                   | Elsevier                                              |
| 760  | environmental health perspectives                                 | 9   | 7                   | National Institute of Environmental Health Sciences   |
| 755  | bmj global health                                                 | 34  | 27                  | bmj Publishing Group                                  |
| 717  | bmj open                                                          | 83  | 0                   | BMJ                                                   |

Data source: Vosviewer

### 3.4 Top Article for the Domain of Community participation in Public Health

**Table 5: Top Article**

| TC   | Author             | Documents                                                                                                                                        | Source                            |
|------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 1393 | wallerstein (2010) | Community-based participatory research contributions to intervention research: The intersection of science and practice to improve health equity | American Journal of Public Health |
| 908  | yancey (2006)      | Effective recruitment and retention of minority research participants                                                                            | Annual Review of Public Health    |
| 891  | leyden (2003)      | Social Capital and the Built Environment: The Importance of Walkable Neighborhoods                                                               | American Journal of Public Health |

|     |                    |                                                                                                                                              |                                       |
|-----|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| 789 | catalani (2010)    | Photovoice: A review of the literature in health and public health                                                                           | Health Education and Behavior         |
| 676 | van sluijs (2007)  | Effectiveness of interventions to promote physical activity in children and adolescents: Systematic review of controlled trials              | British Medical Journal               |
| 566 | levasseur (2010)   | Inventory and analysis of definitions of social participation found in the aging literature: Proposed taxonomy of social activities          | Social Science and Medicine           |
| 507 | barr (2003)        | The expanded Chronic Care Model: an integration of concepts and strategies from population health promotion and the Chronic Care Model.      | Hospital quarterly                    |
| 420 | israel (2005)      | Community-based participatory research: Lessons learned from the Centers for Children's Environmental Health and Disease Prevention Research | Environmental Health Perspectives     |
| 357 | jenkinson (2013)   | Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers                 | BMC Public Health                     |
| 353 | lasker (2003)      | Broadening Participation in Community Problem Solving: A Multidisciplinary Model to Support Collaborative Practice and Research              | Journal of Urban Health               |
| 328 | peeling (2017)     | Primer: Syphilis                                                                                                                             | Nature Reviews Disease Primers        |
| 327 | lee (2011)         | School health guidelines to promote healthy eating and physical activity                                                                     | Morbidity and Mortality Weekly Report |
| 315 | o'mara-eves (2015) | The effectiveness of community engagement in public health interventions for disadvantaged groups: A meta-analysis                           | BMC Public Health                     |
| 313 | utzinger (2005)    | Conquering schistosomiasis in China: The long march                                                                                          | Acta Tropica                          |
| 287 | gillies (1998)     | Effectiveness of alliances and partnerships for health promotion                                                                             | Health Promotion International        |

Data source: Vosviewer

The table 5 represents the most cited article in the area of community participation in public health. One article has one thousand above citations. Six articles have five hundred above citations. The most influential article title is “Community-based participatory research contributions to intervention research: The intersection of science and practice to improve health equity”

---

published in 2010 by “American Journal of Public Health” with the 1393 citation. This paper focus on the community based participatory research. In this paper, research elaborates the various challenges came to path of the practice of scientific method in the society and how the CBPR technique handle it(Wallerstein & Duran, 2010). The second most influential article, "Effective Recruitment and Retention of Minority Research Participants" (908 citations), published in 2006 in the “Annual Review of Public Health”, also focuses on disparities within research. This study analysed 95 healthcare publications from 1995 to 2005 and revealed limited contributions from “African Americans/Blacks, Latinos/Hispanics, and Native Americans/American Indians”. This underrepresentation aligns with existing health disparities within these communities(Yancey et al., 2006).

The next most cited article is “Social Capital and the Built Environment: The Importance of Walkable Neighborhoods”. It has 891 citations, published by “American Journal of Public Health” in 2003. This article shows the important of social network and community involvement on health. People who are more social and take participation in community activities has positive health result compared to less involved people, signifying positive impact of community participation on physical, mental health and life expectancy(Leyden, 2003).

### **3.5 Top References In area of Community participation in Public Health**

The table 6 presents the most frequently cited references in the field of community participation in public health. The article written by Braun V., Clarke V., titled “Using Thematic Analysis in psychology in Qual Res Psychol, 3, pp. 77-101, (2006)” is top referenced article with total 29 citations. This article provides information about how to conduct thematic analysis, it advantages and disadvantage and scope of thematic analysis beyond field of psychology(Braun & Clarke, 2006). The second most reference article title is “Review of Community-Based Research: Assessing

Partnership Approaches to Improve Public Health” (1998) authored by Israel et al. This paper's total citation count is 26. This paper provides insight about community-based research and public health research, revealing the details about paradigm use by different researchers, challenges and factors used in this area (Israel et al., 1998b).

**Table 6: Top References**

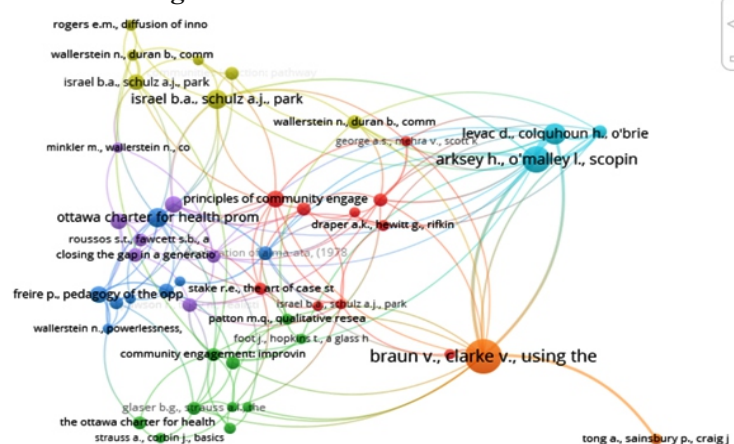
| TC | Cited Reference                                                                                                                                                                                            |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29 | braun v., clarke v., using thematic analysis in psychology, qual res psychol, 3, pp. 77-101, (2006)                                                                                                        |
| 26 | israel b.a., schulz a.j., parker e.a., becker a.b., review of community-based research: assessing partnership approaches to improve public health, annu rev public health, 19, pp. 173-202, (1998)         |
| 25 | ottawa charter for health promotion, (1986)                                                                                                                                                                |
| 20 | principles of community engagement, (2011)                                                                                                                                                                 |
| 19 | freire p., pedagogy of the oppressed, (1970)                                                                                                                                                               |
| 19 | the future of public health, (1988)                                                                                                                                                                        |
| 17 | braun v., clarke v., using thematic analysis in psychology, qual res psychol, 3, 2, pp. 77-101, (2006)                                                                                                     |
| 17 | israel b.a., schulz a.j., parker e.a., becker a.b., review of community-based research: assessing partnership approaches to improve public health, annu. rev. public health, 19, pp. 173-202, (1998)       |
| 17 | israel b.a., schulz a.j., parker e.a., becker a.b., review of community-based research: assessing partnership approaches to improve public health, annual review of public health, 19, pp. 173-202, (1998) |
| 16 | arksey h., o'malley l., scoping studies: towards a methodological framework, int j soc res methodol, 8, pp. 19-32, (2005)                                                                                  |
| 14 | arksey h., o'malley l., scoping studies: towards a methodological framework, int j soc res methodol, 8, 1, pp. 19-32, (2005)                                                                               |
| 14 | closing the gap in a generation: health equity through action on the social determinants of health, (2008)                                                                                                 |
| 14 | levac d., colquhoun h., o'brien k.k., scoping studies: advancing the methodology, implement sci, 5, (2010)                                                                                                 |
| 14 | minkler m., wallerstein n., community-based participatory research for health: from process to outcomes, (2008)                                                                                            |
| 14 | pawson r., tilley n., realistic evaluation, (1997)                                                                                                                                                         |

### 3.6 Analysis of Co-citations References

To ascertain a subject's foundational knowledge, co-citation analysis delves into the conceptual interconnections between concurrently cited references. This technique enables the identification of key ideas within a topic by mapping frequently cited papers. Using VOSviewer's association strength normalization approach, 47 documents met the requirement of having at least eight citations per document (Figure 2). Each bubble, representing a distinct bibliographic linkage, is scaled proportionally to the document's citation count. The intensity of the connection between two publications was quantified by the frequency of shared citations. As a result, two pieces of previous study and later literature were frequently cited. A cluster consists of nodes with the same color.

Co-citation analysis identifies seven distinct knowledge clusters, as shown in Figure 2: Red and Green Cluster having 10 items; Third cluster blue has 8 items, fourth cluster yellow has 7 items, fifth cluster purple has 7 items, sixth cluster sky-blue has 3 items, and seventh cluster orange has two items. From the above items, most cited article, titled 'Using thematic analysis in psychology' by Braun V., Clarke V., has 83 citations and belongs to the orange cluster

### Figure 2: Co-citation of References



Source:-VOSviewer

---

### 3.7 Visualization of Keyword Analysis

Figure 3 presents the analysis of keyword full-count method and authors keywords applied. From the total 3267 documents, total 5539 keyword emerged and 415 meet the limit of threshold from them.

Table 7 displays top keywords.

The completed map displays numerous bubble clusters in various sizes and colors, interconnected by varying distances. Each cluster is visually represented by a distinct color. This group mapping technique identifies research themes with high level of connected elements. The visual representation of each bubble's size is scaled according to its frequency of association with the examined documents. Finally, lines indicate the relationship between words in study. The closer keywords are located to one another, the more significant their connection is likely to be. Total 7 clusters are formed on the basis of the 49 keywords. The mostly occurred keywords are public health (389 occurrence and 442 link strength) followed by community engagement (387: 378), covid-19 (209: 244) and community participation (260:220).

**Table 7: Keyword analysis**

| S.No. | Keyword                                 | Occurrences | Total Link Strength | S.No. | Keyword                      | Occurrences | Total Link Strength |
|-------|-----------------------------------------|-------------|---------------------|-------|------------------------------|-------------|---------------------|
| 1     | Public health                           | 389         | 442                 | 26    | Community health partnership | 24          | 43                  |
| 2     | Community engagement                    | 387         | 378                 | 27    | Policy                       | 35          | 43                  |
| 3     | Covid-19                                | 209         | 244                 | 28    | Ethics                       | 32          | 37                  |
| 4     | Community participation                 | 260         | 220                 | 29    | Social capital               | 28          | 37                  |
| 5     | Health promotion                        | 107         | 147                 | 30    | Mental health                | 38          | 36                  |
| 6     | Community- based participatory research | 99          | 125                 | 31    | Environmental health         | 28          | 35                  |
| 7     | Community                               | 83          | 116                 | 32    | Primary care                 | 27          | 35                  |
| 8     | Health equity                           | 71          | 101                 | 33    | Collaboration                | 24          | 34                  |
| 9     | Health disparities                      | 61          | 96                  | 34    | Community health workers     | 31          | 33                  |
| 10    | Community health                        | 64          | 86                  | 35    | Physical activity            | 43          | 33                  |
| 11    | Qualitative research                    | 59          | 77                  | 36    | Equity                       | 31          | 31                  |
| 12    | Participation                           | 51          | 76                  | 37    | Systematic review            | 20          | 30                  |



The First shown in red has 9 keywords. The fourth yellow cluster has eight items. The fifth cluster, visually represented in purple, encompasses seven items. The sixth cluster, visualized in sky blue, encompasses seven items. The seventh cluster, depicted in orange, comprises a single keyword: "Primary Care."

### 3.8 Bibliographic coupling

Figure 4 illustrates how documents related to community participation in public health are grouped together based on their shared bibliographies. A total of seven distinct clusters were identified, collectively representing the key thematic areas within this field of study, as summarized in Table 8.

**Table 8 Bibliographic coupling**

| Theme                                                              | Author                    | Title                                                                                                                                            | TC   | Total Link Strength |
|--------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------|
| Community Participation and Research                               | Wallerstein N.; Duran B   | Community-based participatory research contributions to intervention research: The intersection of science and practice to improve health equity | 1393 | 25                  |
|                                                                    | Catalani C.; Minkler M.   | Photovoice: A review of the literature in health and public health                                                                               | 789  | 13                  |
| Community Participation revisiting and malaria, dengue eradication | Zakus J.D.L.; Lysack C.L. | Revisiting community participation                                                                                                               | 279  | 26                  |
|                                                                    | Heintze et al.            | What do community-based dengue control programmes achieve? A systematic review of published evaluations                                          | 175  | 02                  |
| Effectiveness and Health                                           | Yancey et al.             | Effective recruitment and retention of minority research participants                                                                            | 908  | 03                  |
|                                                                    | Van et al.                | Effectiveness of interventions to promote physical activity in children and adolescents: Systematic review of controlled trials                  | 676  | 02                  |
| Effectiveness and Participatory intervention                       | Gillies P.                | Effectiveness of alliances and partnerships for health promotion                                                                                 | 287  | 03                  |
|                                                                    | Kellehear A.              | Compassionate communities: End-of-life care as everyone's responsibility                                                                         | 177  | 04                  |



---

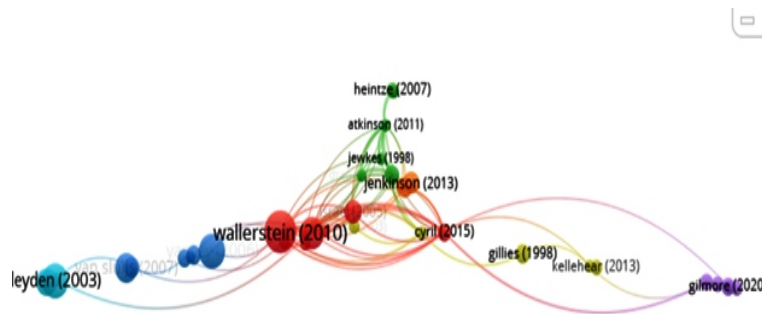
|                                       |                  |                                                                                                                                                                                                                                                              |     |    |
|---------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| Covid-10<br>Pandemic                  | Gilmore et. al.  | Community engagement for COVID-19 prevention and control: A rapid evidence synthesis<br>Community participation in health services development, implementation, and evaluation: A systematic review of empowerment, health, community, and process outcomes. | 238 | 06 |
|                                       | Haldane et al.   |                                                                                                                                                                                                                                                              | 209 | 09 |
| Social<br>Participation<br>and Health | Leyden K.M.      | Social Capital and the Built Environment: The Importance of Walkable Neighborhoods<br>Inventory and analysis of definitions of social participation found in the aging literature: Proposed taxonomy of social activities                                    | 891 | 06 |
|                                       | Levasseur et al. |                                                                                                                                                                                                                                                              | 566 | 03 |
| Meta<br>Analysis and<br>Public Health | Jenkinson et al. | Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers<br>The effectiveness of community engagement in public health interventions for disadvantaged groups: A meta-analysis           | 357 | 01 |
|                                       | O'Mara et al.    |                                                                                                                                                                                                                                                              | 315 | 12 |

Data source: Vosviewer

The first cluster represents “Community Participation and Research” (Red Cluster). In this cluster, Wallerstein N.; Duran B (2010) is the most influential article, and total citation is 1393 and link strength is 25. This paper explores Community-Based Participatory Research (CBPR) at both theoretical and practical levels. This approach has the potential to mitigate health inequities by fostering more equitable power dynamics (Wallerstein & Duran, 2010).

---

**Figure 4 Cluster of bibliographic coupling**



Source: VOSviewer

The second cluster theme is “Community Participation Revisiting and Malaria, Dengue Eradication” (Green Cluster). Zakus (1998) in their study argued that the responsibility for community participation should lie with the local health program executor. The study also discusses about the various challenges faced by community participation programs (Zakus, 1998). The third cluster is related to “Effectiveness and Health” (Blue Cluster). Yancey et al. (2006) highlight the lesser contribution of “African Americans/blacks, Latinos/Hispanics, and Native Americans/American Indians minorities in the research” (Yancey et al., 2006).

The fourth cluster, titled “Effectiveness and Participatory Intervention” (Yellow Cluster), features Gillies's (1998) highly cited article as its primary publication. This study critically examines the concept of community participation in health promotion programs within both Southern and Northern nations (Gillies, 1998).

The fifth cluster titled “Covid-19 Pandemic” (Purple Cluster) has highly cited article by Gilmore et al. (2020). In their study the authors highlighted how the successful implementation of community participation strategies in prior outbreaks may serve as

---

valuable precedents for enhancing the efficacy of COVID-19 response efforts"(Gilmore et al., 2020).

The Six cluster is "Social Participation and Health" (Sky Blue Cluster). Leyden K.M. (2003) highlighted the positive association between walkable neighbourhoods (featuring pedestrian-friendly designs) and enhanced social capital, characterized by increased community engagement, trust, and mutual support(Leyden, 2003). The Seventh cluster theme is "Meta Analysis and Public Health" (Orange Cluster). Jenkinson et al. (2013) conducted a meta-analysis that included studies examining the health outcomes of individuals engaged in community volunteer work. While the findings did not reveal significant impacts on physical health, the analysis demonstrated a positive association between community engagement and improved mental health, specifically reduced levels of depression–"(Jenkinson et al., 2013). This finding underscores the need for future research.

#### **4. Discussion**

This bibliometric analysis offers critical insights into the evolving landscape of research within community participation and public health. It systematically identifies areas of significant strength and provides a comprehensive collection of highly cited works, influential authors, key journals, and other pertinent aspects, thereby mapping the intellectual structure of the field. The results unequivocally demonstrate a noteworthy expansion in the volume of publications concerning community participation in public health.

Historically, the discourse underwent a significant transformation with a seminal article that fundamentally redirected attention towards community empowerment and self-determination as indispensable strategies for combating systemic racism embedded within healthcare systems(Cornely, 1970). Building upon this foundational conceptual shift, the field has progressively embraced Community-Based Participatory Research (CBPR). Highly influential scholarly work subsequently elucidated how

---

this methodology effectively navigates the inherent complexities of applying rigorous scientific methods within diverse societal contexts (Wallerstein & Duran, 2010). This demonstrable progression collectively underscores the field's dynamic evolution and increasing methodological sophistication.

This research also identifies seven influential clusters based on a thematic analysis of the community participation in public health literature. These clusters include: "Community Participation and Research," "Community Participation Revisiting and Malaria, Dengue Eradication," "Effectiveness and Health," "Effectiveness and Participatory Intervention," "COVID-19 Pandemic," "Social Participation and Health," and "Meta-Analysis and Public Health." Each of these thematic areas is substantiated by prominent research investigating diverse topics such as the COVID-19 pandemic, the contributions of volunteers, the engagement of community and disadvantaged groups, the role of social capital, and various public health concerns. Conversely, it is important to acknowledge that community-based approaches, while generally beneficial, can inadvertently exacerbate existing social inequalities within healthcare systems, as noted by Gillies (1998).

This extensive bibliographic compilation underscores the significant breadth and depth of research dedicated to fostering a more nuanced understanding and enhancing effective community participation within the dynamic realm of public health. Empirical evidence from various studies further suggests that community participation initiatives significantly contribute to improved health outcomes, including positive impacts on mental health (such as reduced depression), increased life expectancy, and enhanced physical well-being (Jenkinson et al., 2013, Leyden, 2003). This bibliometric analysis serves as a guide for comprehending community participation in public health, emphasizing crucial subjects such as healthcare equity, social determinants of health, and research trends in low- and middle-income nations. Furthermore, it offers insightful knowledge on

---

successful community involvement during previous outbreaks, providing crucial insights for enhancing the effectiveness of COVID-19 initiatives (Gilmore et al., 2020). The study's visual analysis highlights the variety of research options in community participation in public health, including risk, pandemic, public health, and meta-analysis, among others.

### **5. Implications**

This study offers significant implications for a diverse audience, including academicians, field specialists, and public organizations. It meticulously compiles and disseminates detailed knowledge about the intricate intersection of community participation and public health, providing a robust conceptual and theoretical understanding for current and future scholarly endeavors. The research illuminates major paradigm shifts and developments that have shaped this field over recent decades, thoroughly examining the evolution and interconnectedness of various concepts and approaches.

Leveraging Scopus, a comprehensive academic database, this research systematically identifies key aspects of scholarly output. This includes pinpointing the most frequently cited journals, recognizing the most productive research communities or institutions, and highlighting the journals that publish the most on this subject. Furthermore, the study delves into the substantive content of the research, identifying prominent themes and recurring keywords that characterize the discourse. By meticulously analyzing these elements, the study provides valuable insights into the intellectual landscape, demonstrating discernible research trends and offering a clear direction for future scholarly endeavors.

The analytical depth of this study provides crucial insights into the most highly cited articles, effectively highlighting the seminal works that have profoundly influenced the discourse. It also meticulously identifies leading research institutions and countries that have made substantial contributions to the field, mapping the

---

global landscape of expertise and innovation. This comprehensive overview serves as an invaluable resource for researchers and academics, facilitating the identification of research gaps and emerging trends. Ultimately, this detailed mapping aims to inspire novel research directions and foster interdisciplinary collaborations, while also rigorously evaluating the research output and impact of individual scholars, research groups, and academic institutions.

## **6. Limitations and Future Research Directions**

This study offers a robust and comprehensive examination of the existing literature and research concerning community participation within the realm of public health.

This forward-looking approach positions the study as an essential guide for researchers aiming to contribute meaningfully to the evolution of knowledge and practice in community participation and public health. However, it is crucial to acknowledge the inherent limitations of any bibliometric analysis, as these limitations can inform and guide future refinements within this field of research.

Firstly, this study was limited to data extracted from the Scopus database, which may have constrained the overall number of documents included in the analysis. Future research could benefit from incorporating data from other relevant databases, or even employing a mixed-methods approach utilizing data from multiple sources.

VOSviewer employs algorithms to generate data clusters and visualizations for analyses such as bibliographic coupling and co-citation. The choice of algorithm can significantly influence the resulting clusters and visualizations. Different algorithms may yield varying outcomes, potentially impacting the accuracy and interpretability of the analysis. The timeframe of data collection significantly influences the outcomes of a bibliometric analysis. Research publications, collaborations, and emerging research

---

trends are constantly evolving. Therefore, the specific time period chosen for data collection can impact the identification of key publications, prominent researchers, and significant research areas. As new research emerges and the field evolves, subsequent analyses conducted with updated data may yield different results. Finally, a crucial limitation lies in the need for further research to optimize the threshold parameters used in the network visualization framework. Additionally, incorporating alternative bibliometric analysis software packages, such as Bibliometrix, into the research process would enable a comparative analysis of results and enhance the robustness of the findings.

## **7. Conclusion**

Community Participation in public health exerts multifaceted impacts and can be operationalized through diverse approaches. In recent decades, a substantial body of literature has emerged on community participation in public health, driven by the increasing recognition of its critical role in achieving universal health coverage as advocated by international organizations. This recognition has spurred significant research activity, with countless studies published by researchers worldwide. A growth in research output underscores the growing interest of stakeholders in community participation in public health. This bibliometric analysis provides a comprehensive overview of this burgeoning body of literature, offering valuable insights into research trends and guiding future research endeavors. It highlights the prominent areas of research through the bibliographic coupling and the seven clusters, which incorporate almost all the crucial aspects of the domain. The findings of this study offer valuable insights for future research directions in the field of community participation and public health. Moreover, this analysis provides valuable guidance for policymakers in selecting and implementing effective community engagement strategies to improve public health outcomes. The purpose of this study is to increase understanding of the current subject, assist with continuing research, and lay the groundwork for future researchers. The results provide important insights into the development, limits,

---

and future directions of community participation in public health, making them especially useful for scholars, decision-makers, and business professionals. This demonstrates the significance of bibliometric research for influencing strategic choices and encouraging interdisciplinary cooperation.

***Funding source and acknowledgment***

This article is an outcome of research conducted under a full-term doctoral grant received from the Indian Council of Social Science Research, New Delhi.

**References**

Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative Science Studies*, 1(1), 377–386. [https://doi.org/10.1162/qss\\_a\\_00019](https://doi.org/10.1162/qss_a_00019)

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77101. <https://doi.org/10.1191/1478088706qp063oa>

Cabaj, J. L., Musto, R., & Ghali, W. A. (2019). Public health: Who, what, and why? *Canadian Journal of Public Health*, 110(3), 340343. <https://doi.org/10.17269/s41997-019-00207-2>

Cornely, P. B. (1970). Community Participation and Control: A Possible Answer to Racism in Health. *The Milbank Memorial Fund Quarterly*, 48(2), 347. <https://doi.org/10.2307/3349125>

Declaration of Alma-Ata International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978. (n.d.). World Health Organisation. [https://cdn.who.int/media/docs/default-source/documents/almaata-declaration-en.pdf?sfvrsn=7b3c2167\\_2](https://cdn.who.int/media/docs/default-source/documents/almaata-declaration-en.pdf?sfvrsn=7b3c2167_2)



---

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285296. <https://doi.org/10.1016/j.jbusres.2021.04.070>

Draper, A. K., & Rifkin, S. B. (2020). Community participation in health systems development. In E. Nolte, S. Merkur, & A. Anell (Eds.), *Achieving Person-Centred Health Systems* (1st ed., pp. 115144). Cambridge University Press. <https://doi.org/10.1017/9781108855464.008>

Framework on integrated, people-centred health services. (2015). World Health Organisation. [https://apps.who.int/gb/ebwha/pdf\\_files/EB138/B138\\_37-en.pdf#:~:text=The%20five%20interdependent%20strategies%20are%3A%20%281%29%20empowering%20and,across%20sectors%3B%20and%20%285%29%20creating%20an%20enabling%20environment.](https://apps.who.int/gb/ebwha/pdf_files/EB138/B138_37-en.pdf#:~:text=The%20five%20interdependent%20strategies%20are%3A%20%281%29%20empowering%20and,across%20sectors%3B%20and%20%285%29%20creating%20an%20enabling%20environment.)

Gillies, P. (1998). Effectiveness of Alliances and Partnerships for Health Promotion. *Health Promotion International*, 13(2), 99120. <https://doi.org/10.1093/heapro/13.2.99>

Gilmore, B., Ndejjo, R., Tchetchia, A., De Claro, V., Mago, E., Diallo, A. A., Lopes, C., & Bhattacharyya, S. (2020). Community engagement for COVID-19 prevention and control: A rapid evidence synthesis. *BMJ Global Health*, 5(10), e003188. <https://doi.org/10.1136/bmjgh-2020-003188>

Hoon Chuah, F. L., Srivastava, A., Singh, S. R., Haldane, V., Huat Koh, G. C., Seng, C. K., McCoy, D., & Legido-Quigley, H. (2018). Community participation in general health initiatives in high and upper-middle income countries: A systematic review exploring the nature of participation, use of theories, contextual drivers and power relations in community participation. *Social Science & Medicine*, 213, 106122. <https://doi.org/10.1016/j.socscimed.2018.07.019>

---

Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (1998a). REVIEW OF COMMUNITY-BASED RESEARCH: Assessing Partnership Approaches to Improve Public Health. *Annual Review of Public Health*, 19(1), 173-202. <https://doi.org/10.1146/annurev.publhealth.19.1.173>

Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (1998b). REVIEW OF COMMUNITY-BASED RESEARCH: Assessing Partnership Approaches to Improve Public Health. *Annual Review of Public Health*, 19(1), 173-202. <https://doi.org/10.1146/annurev.publhealth.19.1.173>

Jenkinson, C. E., Dickens, A. P., Jones, K., Thompson-Coon, J., Taylor, R. S., Rogers, M., Bamba, C. L., Lang, I., & Richards, S. H. (2013). Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers. *BMC Public Health*, 13(1), 773. <https://doi.org/10.1186/1471-2458-13-773>

Leyden, K. M. (2003). Social Capital and the Built Environment: The Importance of Walkable Neighborhoods. *American Journal of Public Health*, 93(9), 1546-1551. <https://doi.org/10.2105/AJPH.93.9.1546>

Primary Health Care Measurement Framework and Indicators: Monitoring Health Systems Through a Primary Health Care Lens (1st ed). (2021). World Health Organization.

Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523-538. <https://doi.org/10.1007/s11192-009-0146-3>

Wallerstein, N., & Duran, B. (2010). Community-Based Participatory Research Contributions to Intervention Research: The Intersection of Science and Practice to Improve Health Equity. *American Journal of Public Health*, 100(S1), S40-S46.

---

<https://doi.org/10.2105/AJPH.2009.184036>

Yancey, A. K., Ortega, A. N., & Kumanyika, S. K. (2006). EFFECTIVE RECRUITMENT AND RETENTION OF MINORITY RESEARCH PARTICIPANTS. *Annual Review of Public Health*, 27(1), 128. <https://doi.org/10.1146/annurev.publhealth.27.021405.102113>

Yuan, M., Lin, H., Wu, H., Yu, M., Tu, J., & Lü, Y. (2021). Community engagement in public health: A bibliometric mapping of global research. *Archives of Public Health*, 79(1), 6. <https://doi.org/10.1186/s13690-021-00525-3>

Zakus, J. (1998). Review article. Revisiting community participation. *Health Policy and Planning*, 13(1), 112. <https://doi.org/10.1093/heapol/13.1.1>

**College of Social Work, Nirmala Niketan, Mumbai**

**Perspectives in Social Work**

**NOTES TO CONTRIBUTORS**

**Criteria for acceptance of articles**

The Journal welcomes articles, reports of research studies, field experiences and academic papers related to Social Work, Social Change, Social Research, Social Psychology, Social Policy and current topics having a bearing on Social Work Theory and Practice. Manuscripts are selected on the basis of relevance to Social Work education and practice, sound treatment of subject, clarity in presentation, methodology of research articles, implications for intervention, appropriateness of references, correct language and evidence of a high level of scholarship.

The author should send soft copies of the article to **nnperspective@cswnn.edu.in**. If the manuscript is found feasible for review, a plagiarism report will be asked from the author. In case the author is not able to do the plagiarism report, they can request the journal secretary to run the plagiarism report by paying the sum of rupees 300/-. There is no guarantee that your paper will be accepted for publication after the plagiarism report. Only after peer review feedback, editorial decision is made.

**Declaration**

Each article should be accompanied with a declaration by the authors stating that the article is original and has not been earlier published nor been submitted for publication elsewhere. If the article has already been published, then permission from the publishers for republishing has to be enclosed along with the manuscript.

**Responsibility of Authors:** Authors are solely responsible for the factual accuracy of their contributions. The author is responsible for obtaining permission to quote lengthy excerpts from previously published material.

---

## Structure of the Article

### *A cover page indicating:*

- Title
- Author Name and Organizational Affiliations
- Corresponding Author Contact Details (postal address, telephone, email)
- Word Length (including abstract, keywords and references)

### *Abstract and Keywords*

#### *A second page including:*

- **Title of the paper**
- **An abstract of not more than 150 words**  
About the abstract - Each article should be summarized in an abstract of **no more than 150 words**. Abstracts must be structured, using four headings: Objective, Method, Results, and Conclusions. Format the abstract as a single paragraph in *Italics*. Abbreviations and citations NOT to be included in the abstract unless the study replicates or builds directly on another's work.
- **Keywords upto five keywords.**

### *Length and presentation*

- The length of the article may range between 3000 and 5000 words, including the abstract, keywords and references but NOT including references, figures, or tables.
- All parts of the manuscript should be typewritten in MS Word typed in 12-point Times New Roman font, double-spaced, with margins of at least one inch on all sides. The pages should be numbered serially.
- Within the text of the article, no features should be included that enable the authorship to be identified (for example in page headers and footers or acknowledgements).

### *Citations, notes, and references*

- All evidence based statements within the article **MUST** be supported with proper citations.

- 
- Authors should ensure that ALL in-text citations have a corresponding reference entry and that each reference entry is cited in the text. Articles with citations but without reference list or vice-versa will NOT be accepted.
  - Key statements in the article may be supported by the author with a logical explanation, the author's opinion, illustration, or in-text citation/paraphrasing of another author's work.
  - Non-citation of others' written work amounts to plagiarism and, thereby, fraud. If plagiarism is identified, the article will not be accepted for publication.
  - Only the last name of the author and the year of publication must be cited in the text.
  - Notes, when necessary should be numbered continuously and should be printed as end notes. Use of footnotes should be avoided.
  - References of both printed and electronic sources should be included at the end of the article in APA format.

References should be listed in *alphabetical order* as follows:  
Barai-Jaitly, T. (2002). The health status of children in India: An overview. Seen but not heard: India's marginalised, neglected and vulnerable children, 43-63 New Delhi: VHA

Dhagamwar, V. (2006) Child Rights to Elementary Education: National and International Provisions in Ravi Kumar (ED), The Crisis of Elementary Education in India (pp. 57 – 91). New Delhi: Sage

Suvarna, Y., Balakrishnan, G. & Talvelkar, K. (2007). The Search of Identity: Placing Universal Birth Registration (UBR) Within the Framework of Child Rights in India in 'Perspectives in Social Work', XXII: 3, 21-37

Singh, S. (2004). Metros perform badly in primary education. Times of India, Mumbai 25.03.2004.

---

Bikker, A. and Thompson AGH. (2006). Predicting and Comparing Patient Satisfaction in Four Different Modes of Health Care Across a Nation in Social Science and Medicine, 63(6), 1671-1683.

Sen, A. (2003). Closing the Gap – Access, Inclusion and Achievement. The-south-asian.com, November 2003 Retrieved 5th Jan 2009 from [http://www.thecommonwealth.org/shared\\_spfiles/uploadedfiles/{F75B1FAA-F88C-43E7-A4B2-B75FEAF6CEF3}\\_Comm%20Sec20REPORT%2004\\_V8.pdf](http://www.thecommonwealth.org/shared_spfiles/uploadedfiles/{F75B1FAA-F88C-43E7-A4B2-B75FEAF6CEF3}_Comm%20Sec20REPORT%2004_V8.pdf)

### Tables and Figures

- Tables, figures, graphs and diagrams (illustrations) should not be embedded in the text. Place tables and figures after the References section and indicate preferred placement point in the body of the manuscript such as "<Insert Table 1 here>".
- A short descriptive title should appear above each table with a clear legend and any footnotes suitably identified below. All units must be included.
- Figures and diagrams should be completely labelled, taking into account necessary size reduction and should be supplied in .gif, .jpg, or .png format with resolution 300 dpi or higher.
- Ensure any colors used in figures will be distinct when converted to black and white for print version.
- The word percent should replace the symbol '%' when it is used in the text, but the symbol '%' can be used in parentheses.

### Review System

The review of the manuscript will be blind and impartial. Manuscripts are reviewed by the Editorial Board and peer-reviewers. Accepted manuscripts may be revised for clarity, organization and length. The article will be sent to authors via e-mail for correction and should be returned **within seven days** of receipt. Corrections and editing as suggested by the Editorial Board and peer-reviewers should be undertaken by the author and is not the responsibility of the publisher. The decision of the Editorial Board will be final and binding.

---

**Publication of articles**

The accepted articles are scheduled for publication in the chronological order in which they are received. The publication lag of an accepted article is generally one year. Each author gets a complimentary copy of the journal issue in which his/her article is printed.

**Communication**

Communication with reference to articles should be addressed to:

**Dr. Lidwin Dias**

Chief Editor

Perspectives in Social Work, Research Unit,  
College of Social Work, NirmalaNiketan  
38, New Marine Lines, Mumbai 400 020, India

Telephone: 22075458/22067345/22002615

Fax : 91-22-22014880

Email : [nnperspective@cswnn.edu.in](mailto:nnperspective@cswnn.edu.in)



## GUIDELINES FOR BOOK REVIEWERS

### Pre-requisites for a Book Review

The book under review should have been published in the **last two years** and should have direct relevance to the field of social work.

### Expectations of a Book Review

The book review can include the following aspects.

- Title of the book (underlined/italicized), edition, name(s) of the author(s)/editor(s), year of publication and name of publisher (separated by a colon), ISBN number, Format (hardcover/soft cover), number of pages and price of the book.
- Objective/theme of the book
- Contents/organization of the book
- Intended audience for the book
- Perceived response of the audience/user (would you recommend it to the user)
- Approach of the book (topical/analytical/chronological /descriptive/biographical)
- Concise summary of contents
- A critique of the content of the book (language and presentation)
- Remarks on the strengths and limitations of the book, originality, implications for practice, contribution to knowledge, contemporary relevance, applicability to Indian conditions in case of a foreign book, adherence to ethical practices in referencing information)
- Conclusion

### A book review could also include:

- A catchy quip/anecdote that succinctly delivers the reviewer's perspective/viewpoint/argument
- Relevant information of the author, where he/she stands in the genre/field of enquiry
- A note (where appropriate) on how well the text is supported by tables/ diagrams illustration
- Quote with a specific page reference. Excessive quotations to be avoided.

---

**Points to note when the book is an edited version comprising chapters from many authors:**

- Summary of each chapter or section (in keeping with the abovementioned guidelines)
- Way in which the central theme is dealt with in each chapter or section
- Name of the author and related information

**Editing Procedure**

The Editorial Board reserves the right to modify the Book Review for length, clarity and content. The reviewer's concurrence to this is assumed, unless specified otherwise by the reviewer.

**Typescript for a Book Review**

The book review should be typed in 12-point Times New Roman font, double-spaced, with margins of at least one inch on all sides on A4 paper and **SHOULD NOT exceed 1500 words**.

**Publication of Book Reviews**

The Book reviews are scheduled by the Editorial Team of Perspectives as per the quality of the review and contemporary issues. Priority will be given to invited book reviews. Every book reviewer gets a complimentary copy of the journal issue in which their review gets published.

---

# GUIDELINES FOR WRITING DIFFERENT TYPES OF ARTICLES

## I. Writing an Article based on a Research Paper/Reports.

This is an article based on an original research project/study, involving information from primary data sources. Such an article contains the following sections:

- Introduction
  - Description of the subject
  - Critical Summary of available information
  - Background of the research
  - Problem identification / analysis
  - Research questions
  - Rationale for the study
- Methodology
  - Aims of the research
  - Research design
  - Variables
  - Operational definitions
  - Sampling strategy
  - Description of the tools of the data collection
  - Techniques for analysis
  - Limitations of the study, if any
- Discussion:
  - Results of the study: This should include a summarized description of the statistical figures and techniques as well as a concise note on the key findings which could be descriptive or numeric
  - Interpretation of the data in terms of:
    - Validation of the hypothesis
    - Corroboration with cited literature
- Conclusion and recommendations:

This section should include the following

  - Recommendations to improve/remedy the situation
  - Implication for the future research and field practice

## II. Writing an Academic Article

This article is based on information from secondary data sources. It generally seeks to raise new issues or examine existing issues from a new perspective. It can also be used for theory building. It should contain the following sections:

- Introduction:
  - Description of the background and importance of the subject under consideration

- Statement of purpose
- Rationale for the article

- Discussion:
  - Critical review of literature
- Gaps in knowledge/services and emerging area addressed:
  - Intervention methods
- Conclusion:
  - Summary of key points
  - Recommendations

## III. Writing an Article based on Field Experiences

This article stems from the experiences of the author. It focuses on a specific issue / problem / project / program that is within the purview of the author's professional practice and is descriptive in nature. It provides details of how the author dealt with the specific issue / problem or implemented the program / project under consideration. An overview of such an article is given below.

- Introduction:
  - Description of the subject under consideration
  - Critical review of relevant literature
  - Problem identification/analysis
  - Rationale for intervention
- Discussion:
  - Details of the problem/issue/program/project under consideration
  - Action plan to improve/remedy the situation
  - Details of implementation of the action plan
  - Critical assessment of effectiveness of intervention
  - Learning in relation to existing theory
  - Limitations and suggested modifications
- Conclusion:
  - Summary of key points
  - Suggestions for future work

**Submissions that do not conform to the above guidelines will be returned for modifications before entering the review process.**



**N.A.A.C 'A' ACCREDITED**  
**With CGPA of 3.53 on Four Point Scale**  
**Valid upto December 31, 2024**

## **College of Social Work (Autonomous)**

**Nirmala Niketan Institute,  
38, New Marine Lines, Mumbai-400 020  
Maharashtra**