

The views and opinions stated in these articles are exclusively those of the writers, and do not necessarily represent Spicer Adventist University's position. The accuracy of all data and quotations is solely the responsibility of the authors.

SAURAJ

SPICER ADVENTIST UNIVERSITY RESEARCH ARTICLES JOURNAL

VOLUME 3 • ISSUE 1 • SEPTEMBER 2025

ISSN: 2583-4568

EDITORIAL BOARD

Editorial Chair & Executive Editor:	Dr. John Williams
Editor in Chief:	Dr. Carol Kingston
Associate Editor:	Dr. Koberson Langhu
Managing Editor:	Mr. Abhisek Lakra
Assistant Editors:	Dr. Maxwell Benjamin Balraj Dr. Sanita Phawa
Layout Editor	Mr. Joash Raj Chavakula
Editorial Board Members	Dr. Jesin Israel Dr. Ranjith Kingston Dr. Swarna Rekha Rao Dr. Susan Thomas Dr. Genu Roney Varghese Dr. Christopher Jefferson Dr. Mohanraj Israel
Guest Editor: (International)	Dr. Ramesh Francis UEAB, Kenya
Publisher:	Dr. A. S. Varekan Registrar, Spicer Adventist University, Pune
Published at:	Spicer Adventist University, Aundh Road, Ganeshkind, Pune-411007, India
Cover Design:	Mr. Kalangiam R

TABLE OF CONTENTS

Volume 3, Issue 1, September 2025

Editorial	5
The Image of God in Christian Theology: A Historical Theological Analysis <i>Jacob Aguimesheo, PhD Scholar, AIIAS, Koberson Langhu, PhD</i>	8
Social Reforms in South India During the East India Company Rule with Special Emphasis on Missionary Works <i>Franklin Samraj, PhD</i>	20
Health as the Cornerstone of a Harmonious Society: Evaluating its Role as a Primary Indicator of Social Well-being <i>Jharendra Bishwakarma, PhD, Carol Kingston, Ph.D.,.....</i>	33
Fabrication of Polymer Nanocomposites for the Removal of Various Dyes Using Adsorption Technique: A Mini Review <i>Tamilchezhiyan, PhD Scholar, John Williams, PhD</i>	54
Ethical Dilemmas Faced by Graduate Student Researchers in Higher Educational Institutions in Southeast Asia: A Case Study <i>Carol Linda Kingston, PhD</i>	63

Editorial

Dear Readers and fellow Researchers,

As we present the latest edition of our research journal, we are reminded of the vital role that scholarly research communication plays in advancing knowledge and fostering innovation. This publication serves not only as a platform for sharing ground-breaking research but also as a space for dialogue among scholars, practitioners, and policymakers. The hard work, dedication, and commitment to advancing knowledge have culminated in an accomplishment that deserves celebration.

In this issue, you will find a diverse array of articles that reflect the interdisciplinary nature of contemporary research. From innovative methodologies to comprehensive analyses, our research contributors have explored pressing issues that challenge our understanding and inspire new avenues for inquiry. We encourage you to engage critically with the findings presented here and consider their implications for your own work and the wider community.

The commitment to rigorous research and ethical scholarship is paramount to our mission. We are proud to highlight studies that not only contribute to academic discourse but also address real-world challenges. As such, we invite our readers and fellow researchers to think creatively about how the insights shared in this journal can inform practice and policy across various fields.

We extend our gratitude to the authors, reviewers, and editorial team whose dedication and expertise make this publication possible. Your contributions are invaluable in maintaining the high standards of our journal. As we move forward, let us continue to foster an environment of collaboration and inquiry. Together, we can push the boundaries of knowledge and make meaningful contributions to society.

As our work reaches a wider audience, we encourage you to promote your research through various channels—social media, conferences, and academic networks. Engaging with other scholars and practitioners will amplify the impact of your findings and foster collaborations that can lead to further innovations. Your willingness to adapt and grow as a researcher is essential in this ever-evolving academic landscape.

Thank you once again for your contributions to our journal. We look forward to seeing how your research continues to develop and inspire others in the field. Together, let us strive to push the boundaries of knowledge and make a lasting impact on society.

Sincerely,

Carol Linda Kingston, PhD

Assistant Professor-Education Department
Editor-in-Chief
SAURAJ

From the Vice Chancellor's desk

Dear Readers and Fellow Researchers,

It gives me immense pleasure to present the latest issue of our Spicer Adventist University Research Article Journal (SAURAJ), Volume 3, Issue 1. The SAURAJ not only showcases the scholarly contributions of our faculty and researchers but also reflects the spirit of inquiry, collaboration, and integrity that defines our institution.

Research and innovation are the lifeblood of our institution. Through the pages of SAURAJ *Research Journal*, we are not only documenting the scholarly achievements of our community but also inspiring the future generations about the power of research to generate knowledge, inspire creativity, and address the challenges of our ever-changing world.

I believe that this new volume stands as a testament to the dedication, rigor, and passion of our authors and the commitment of our editorial team. The breadth and depth of topics presented reflect not only academic excellence but also a deep sense of responsibility towards real-world issues and community engagement.

I encourage all our readers and researchers to remain steadfast in their pursuit of truth, creativity, and innovation.

May *SAURAJ* continue to serve as a beacon of learning and a source of inspiration for our academic community and beyond.

Warm regards,

Professor. Milon Rana, PhD

Vice Chancellor,
Spicer Adventist University
Pune-411007

From the Registrar's Desk

SAURAJ is a highly acclaimed research journal in the field of social sciences, business, religion and sciences. This journal caters mainly to the academic fraternity to assimilate and disseminate ideas, thoughts and scientific findings. It is a journal that ensures articles of the highest possible ethical and quality to make impactful contribution to the respective discipline.

In this digital world where information is available at a fingertip and in the midst of the bombardment of information, it is extremely complex and difficult to make informed decision. It is at this that journal such as SAURAJ can be relied on and can make the difference. In the midst of predators and fakes, truth and genuine still exist. SAURAJ disseminate the valuable information by marrying the digital and the hard copy to meet the need of different readers.

SAURAJ is a journal that is worth because of the quality research articles. Being an academic research journal, it is for every researcher to publish and also to read to extract and enrich oneself. This particular edition of the journal includes research articles such as

“The Image of God in Christian Theology: A Historical Theological Analysis”

“Social Reforms in South India During the East India Company Rule with Special Emphasis on Missionary Works”

“Health as the Cornerstone of a Harmonious Society: Evaluating its Role as a Primary Indicator of Social Well-being”

“Fabrication of Polymer Nanocomposites for the Removal of Various Dyes Using Adsorption Technique: A Mini Review”

“Ethical Dilemmas Faced by Graduate Students Researchers in Higher Educational Institutions in Southeast Asia: A Case study”

A.S. Varekan,

Spicer Adventist University
+91-9921848968
registrar@sau.edu.in

THE IMAGE OF GOD IN CHRISTIAN THEOLOGY: A HISTORICAL-THEOLOGICAL ANALYSIS

Jacob Aguimesheo, PhD Scholar, Theological Seminary, AIIAS

Koberson Langhu, PhD, Department of Religious Studies, Spicer Adventist University

Abstract

The image of God concept stands as a cornerstone in Christian theology, shaping understanding of human nature, identity, and relationship with the divine. Embedded within the pages of Scripture and expounded upon by theologians throughout history, the image of God has been a subject of profound theological reflection and debate. This historical-theological analysis seeks to delve into the rich tapestry of interpretations surrounding this doctrine within the Christian tradition. The purpose of the paper is to provide a comprehensive survey of its articulation and historical development. In other words, the study examines key patristic writings, medieval theological developments, Reformation perspectives, and contemporary interpretations, thereby offering a nuanced overview of how the concept of the image of God has evolved over time.

Keywords: Imago Dei, human nature, logos, body, soul, spirit, church father, patristic, reformation, modern, post-modern.

Introduction

Throughout history, interpretations of the *imago Dei* (image of God) have undergone significant evolution (McGrath, 2011). In the early centuries of Christianity, this concept held central importance in the reflections of Church Fathers across both Latin and Greek traditions. Notably, figures such as Tertullian, Hilary, Ambrose, Augustine, Athanasius, Origen, Cyril, and Gregory of Nyssa contributed to its development and understanding (Solignac, 1971). From the Patristic era to the present, interpretations of the *imago Dei* have sparked diverse perspectives, leading to scholarly debates and controversies across scientific, philosophical, anthropological, and biblical-theological domains. This paper aims to analyse historically and theologically the plurality of these interpretations.

Jewish-Hellenistic Period (323 BC-70 AD)

The dating of the Jewish-Hellenistic period has much controversy. However, the bulk of biblical dictionaries agree on a time period spanning from Alexander the Great's conquest of the Mediterranean world and Asia in 323 BC to the destruction of Jerusalem Temple in 70 AD (Jacob and Scott, 1996). The *imago Dei* concept during this period was dominated and centralized by Philo of Alexandria (20 BC-45 AD), a

contemporary Hellenizing Jew. His reflection on the image of God arose from the influence of two intellectual currents that reigned in Alexandria, namely Greek and Platonic philosophical thought and Hebrew theistic thought (Hillar, 2020).

According to Philo, man resembles God not in his bodily structure but in his soul, in particular, in his spirit. This statement is due to his theory of double creation which he had conceived (the ideal and corporal man). He perceives a significant contrast between the man created in God's image (Gen 1:27) and the man fashioned of clay (Gen 2:7) (Hillar, 2020). He differentiates them as between the mankind of Genesis 1:26-27 and the man of Genesis 2:7. The first is a platonic ideal, whereas the second, an actual human species. The ideal man is therefore equated with logos (word). He does not, however, directly associate the man with the image or logos since he is certain that God cannot be understood as a corporeal being (Simango, 2016).

The Church Fathers (100-749 AD)

The Church Fathers, despite their diverse approaches, devoted extensive attention to the concept of the image of God. Their understanding was influenced by three primary factors: the Scriptures, Greek philosophy, and the theological writings of Philo of Alexandria. To comprehend the varied perspectives on the image of God among the Church Fathers, it is essential to examine the major divisions within Patristic historical theology: the apostolic Church Fathers, the Ante-Nicene Church Fathers, and the Post-Nicene Church Fathers.

The Apostolic Church Fathers

During the apostolic patristic period, which spans from approximately 70 to 163 AD, influential figures such as Ignatius of Antioch, Clement of Rome, Polycarp of Smyrna, and Papias of Hierapolis emerged as key theological voices. Central to their theology of the image of God was the incarnation of Jesus Christ and its significance in the sacraments. They viewed Jesus as the ultimate embodiment of God's image, representing the divine essence in human form. Within the context of the Eucharist, Jesus was regarded as the true archetype, or "*tupos*," symbolizing the spiritual reality of God's presence among believers. This understanding underscored the profound connection between the earthly manifestation of Christ and the sacramental life of the early Christian community, shaping their theological perspectives on the image of God (Woodhead, 2004).

The Ante-Nicene Church Fathers

During the era of the Ante-Nicene Church Fathers, spanning the Apostolic Age of the first century to the first Council of Nicaea in 325 AD, Church Fathers such as Irenaeus of Lyons, Clement of Alexandria, Tertullian, and Origen of Alexandria played significant roles in shaping the theology of the image of God. Their theological insights and writings contributed to the development of early Christian thought on the topic. This period represents a crucial phase in Christian history, characterized by intellectual and theological ferment as early Christian communities grappled with doctrinal questions and theological challenges.

In the teachings of theologians from this church era, human anthropology was described as a composite nature consisting of spirit and flesh, fashioned in the image of God. Irenaeus categorized humanity into two distinct groups based on this understanding: those who believe and those who do not believe. This dual classification reflected his perception of the fundamental dichotomy inherent in human nature, emphasizing the spiritual dimension and the importance of faith in shaping individual identity and destiny (Irenaeus, 1953). He claims that nonbelievers, made in the image of God, possess a twofold nature comprising body and soul. In contrast, believers, also made in God's image and likeness, possess a threefold nature consisting of body, soul, and spirit. He asserts that "the unbeliever is a carnal and flawed individual" (Simango, 2016). The unbeliever was formed in the image of God, but he did not receive the likeness of God by the Spirit. In his opinion, man has lost his image of God's resemblance in the Garden of Eden and has just the image of God left (Simango, 2016). It is for this reason that he distinguishes between "image" and "resemblance." The "image" denotes an ontological participation (*methexis*), i.e., reason, and the "likeness" designates morality (*mimêsis*) according to this difference (Simango, 2016). To put it differently, man's residual image of God aligns with his reasoning faculty and his capacity to make flawed choices, whereas God's likeness refers to a "cloak of holiness," symbolizing righteousness and justice bestowed upon Adam by the Holy Spirit (Simango, 2016).

During his ministry, Clement of Alexandria delved into the image of God theology to explore and comprehend Christian anthropology. He posited that God's image is embodied in the *Logos*, with humanity serving as the image of the image. In his interpretation, the divine directive "Let us make man in our image and likeness" finds fulfillment through the Logos, identified as Christ (Genesis 1:26). Clement viewed humans as reflections of the perfect image represented by the Logos. Additionally, he occasionally juxtaposed the dual significance of logos, representing both reason and God's message. According to Clement, all individuals possess the image of God because they possess reason. His ideas draw parallels with Plato's *Republic*, which delineates the human soul into three components: intelligence, anger, and desire (Imperato, 2002). Intelligence or reason is the inner man, the master of the outer man. But it is run by someone else, that is, by God. Clement connects reason and intellect to the breath of life, which God poured into matter when he created Adam (Clement, nd). And the likeness refers to the human perfection obtained by the effort with the help of God and it goes through a life of virtues (Clement, np).

Tertullian claims that God created man in his image and gave him life in his likeness. Therefore, like Irenaeus, he also established a difference between image and resemblance (Berkhof, 2017). For him the image can never be destroyed, while the likeness can be lost through sin. The image of God is immaterial. He also maintains against Marcion that the Son is God's image (Tertullian, 1885). This is why he puts Christological emphasis on the term "image of God," discussing the fine definitions of what is and what is not really an "image." In Tertullian's perspective, the archetype of Christ serves as the foundation upon which God created humanity. Consequently, the *imago Dei* finds its culmination in the flesh of Christ. According to Tertullian, Christ, as the embodiment of God's image, assumed flesh from Adam, transitioning from being "the heavenly man" to an earthly one (1885).

Origen explores a vast theological realm centered on the concept of God's image, offering fertile ground for Trinitarian speculation and the development of sanctifying grace theology. Similar to Clement of Alexandria, Origen posits that only the Logos, in his divine essence, perfectly mirrors the Father. Human beings, according to Origen, are "*kat'ikona*," or the image of the image, signifying a secondary likeness to God. His theology is anchored in four fundamental aspects: creation, sin, progress, and transformation. Initially, humanity shared in God's image at creation, particularly within the inner realm of the soul impacted by the mind. However, when sin was introduced in the creation, the image of the image was affected. The restoration of this image can only occur through Christ, leading to the attainment of the likeness of the Holy Spirit through spiritual development. While complete likeness is not realized in earthly life, it will be attained in the bodily resurrection, representing a transformative process. Ultimately, as the Logos takes full possession of human nature, each soul will be perfected, reflecting the image of God (Crouzel, 1992).

The Post-Nicene Church Fathers

The theology of the image of God was developed during the Post-Nicene period, which is often referred to as the Patristic Golden Age when significant theological contributions were made by Church Fathers such as Gregory of Nazianzus (329-390 AD), Gregory of Nyssa (335-394 AD), Ambrose of Milan (340-397 AD), Augustine of Hippo (354-430 AD), and Cyril of Alexandria (376-444 AD). This era, spanning from the Council of Nicaea in 325 AD to the Council of Chalcedon in 451 AD, is characterized by a flourishing of theological thought and the formulation of key doctrines, particularly related to Christology and Trinitarian theology. It represents a pivotal period in the development of Christian doctrine and the establishment of orthodoxy, culminating in the Chalcedonian tradition (Fedou, 2013).

The understanding of the image of God varied in one way or another among the Cappadocian Fathers. The image of God in man, according to Gregory of Nyssa, is found in his free will (Gregory, 1893). According to him, man had to be free if he wanted to be God's image. He emphasized freedom as central to the divine image. For him, man's likeness to God is not in external features but in rationality and above all, in free will. The *imago Dei* is primarily located in human freedom. He insists that man must be free if he is truly to bear God's image and to be capable of communion with Him (Behr, 2006; Lossky, 1976).

In his theological framework of the trinity, Gregory of Nazianzus sees Christ as God's image (Thomas, 2019). Christ is a divine image, living and dynamic and different from inanimate copies or mere representations such as images and idols. This heated debate led Didyma of Alexandria (AD 331-398) to conclude that man lost the image of God in which He was originally created as a result of sin. God's image is now present in baptism. In baptism, man discovers the image and likeness of God (Didymus, np).

Ambrose of Milan has two interpretations of the image of God (Boersma, 2016). Initially, he identifies Christ as the image of God, and subsequently, he associates the soul and ethics with the image of God in humanity. Through Christ, he discerns the significance of humanity embodying the image of God (Simango, 2016).

God's image in the human person is a dynamic movement by which one conforms to the image of his Son. In humans, the image only corresponds to his soul, not to his body (Simango, 2016). Ambrose also emphasizes the moral significance of the image of God by consistently highlighting Christian virtue in public life. Through this emphasis, he contributes a rich and remarkable ethical theology rooted in the *imago Dei* to fourth-century Christian theology.

Saint Augustine interpreted the *imago Dei* in a more personal, psychological, and existential manner. For him, man's perception of God is characterized by a Trinitarian structure, evident in the tripartite nature of the human soul (spirit, self-knowledge, and love), or the three components of the psyche (memory, intellect, and will) (Augustine, 1988). He claimed that man's image of God leads him to God through invocation, knowledge, and love (Augustine, 1893). The essence of God's image resides within man's soul, particularly within his faculty of reason. He interprets the image of God described in Genesis 1:26-27 as the endowed capacity for rationality and comprehension bestowed upon all who have the ability to perceive and respond to God (Simango, 2016). According to Augustine, the image of God was likewise distorted by the fall of man. In others words, the image was lost in the Garden of Eden. However, God restored it through Jesus, the perfect image of God (Simango, 2016).

Cyril of Alexandria's interpretation of Genesis 1:26-27 equates "image" with "likeness," attributing the image primarily to man's soul, which encompasses both reason and free will. He asserts that man's authority over irrational creation further reflects this image. However, Cyril emphasizes that the most crucial aspect of man's reflection of God's image is found in his pursuit of sanctification and virtue (Burghardt, 1957).

Medieval Age

During the Medieval Age, Thomas Aquinas (1224-1274 AD) contributed significantly to the theology of the image of God (Aquinas, 1952). He proposed a tripartite understanding of the *imago Dei*, which unfolds across three stages: the image of creation (nature), the image of recreation (grace), and the "image of likeness of glory" (glorification). Aquinas asserted that all individuals, by virtue of their rational faculty, reflect the image of creation. However, the image of recreation is realized only in believers who align themselves with God's mercy, particularly through Christ. Finally, the image of likeness of glory is manifested solely in believers who have been glorified (Simango, 2016).

Aquinas, like Augustine, sees the image of God primarily in man's reasoning capacity, intellect, or reason at this level (Aquinas, 1952). The image of God is mostly achieved through intellectual reflection (Simango, 2016). However, the challenge often encountered with the interpretation of Augustine and Thomas Aquinas is this: if humanity bears the image of God due to possessing intellect, reason, will, and emotions, does this imply that demons and Satan, who may exhibit greater intelligence and emotion than humans at times, also share in this divine image? (Simango, 2016). Furthermore, what of those individuals lacking reason or experiencing mental impairment? Are they still considered created in the image of God? Even if we posit that the image of God in humanity is reason or intellect,

questions arise regarding the uniformity of this image. Not all individuals possess the same level of reason or intelligence bestowed by God; there exists a spectrum of intellect among humanity, ranging from profound to limited. Thus, does the image of God vary in proportion among humanity? We find this notion challenging to accept, hence the difficulty in embracing this interpretation.

Similar to Irenaeus, Aquinas identified the image and likeness of God within the morality of humanity, leading many to speculate that he drew inspiration from Irenaeus' writings. Aquinas posited that the image of God resides in morality, as humans were originally created as good beings. However, sin disrupted humanity's moral likeness to God and distorted their will upon the Fall. While the grace of the Holy Spirit was forfeited, humanity's essential identity persisted (Simango, 2016).

Reformation Age

In Christian theology, the academic contributions of the Reformers to the understanding of the image of God hold significant weight. Martin Luther (1483-1546 AD) and John Calvin (1509-1564 AD) emerged as prominent and influential figures in shaping this perspective. Additionally, the interpretations of the Socinians and certain early Armenians during this period also warrant attention and consideration.

Martin Luther

Martin Luther diverges from the perspectives of Irenaeus and Augustine by introducing the concept of God's image as comprising two distinct aspects: the public image and the intimate image. This notion bears similarities to the differentiation made by Irenaeus and Aquinas between image and likeness (Simango, 2016). His perspective delineates the public image as universally present among mankind, encompassing the will and intellect, which remained intact even after the Fall. On the other hand, the private image denotes the original justice lost in the Fall, which is only restored to believers upon conversion (Brunner, 1952). Luther characterizes the *imago Dei* as the harmonious and complete existence of man and woman within the garden, comprising the "original righteousness" possessed by Adam and Eve prior to the Fall. He argues that this image has been marred by sin but is ultimately restored through the plan of redemption (Luther, 1955).

John Calvin

Calvin identifies the image of God in humanity primarily within the soul. While acknowledging that God's splendor is manifested outwardly in humanity, he asserts that the essence of God's image resides within the soul (Calvin, 1960). In his understanding, there exists no differentiation between the concepts of image and likeness; instead, he regards these terms as synonymous, each complementing the other to express the same reality. Unlike Luther, Calvin does not employ the distinction between the public and private image. Rather, he perceives God's image and likeness, as depicted in Genesis 1:26-27, as characterized by constant justice and genuine purity (Calvin, 1960). Calvin draws insights from passages such as Colossians 3:10 and Ephesians 4:24 to elucidate this concept (Simango, 2016). Calvin's doctrine of total depravity asserts that sin has thoroughly degraded the image of God in humanity. While not completely annihilated, according to Calvin, the image

remains severely distorted. He posits that only in the chosen ones will Christ, the perfect image of God, restore this damaged image (Simango, 2016).

Socinians and Early Armenians

The Socinians and certain early Armenians posited that humanity's dominion over the lower world served as the exclusive representation of God's image (Berkhof, 2017). However, this perspective faced criticism on multiple fronts. One critique was that it implied all individuals, regardless of their faith, were created in God's image. This interpretation was utilized by some to advocate for free will over sovereign grace, while others leveraged it to promote the concept of common grace. This underscores the contention that the divine grace of God underpins various interpretations of the image of God, challenging the notion that human dominion alone serves as its sole representation (Angus, nd).

The disputes of the Reformation era underscore the ongoing significance of the theology of the *imago Dei* for both Protestant and Catholic theologians, as well as for figures like Augustine, Aquinas, and certain Church Fathers. On one side of the debate, the Reformers criticized Catholics for constraining God's image to a "natural image," which presented a static conception of human nature and encouraged sinners to establish themselves before God. Conversely, Catholics accused the Reformers of denying the ontological validity of the *imago Dei* and reducing it solely to "original righteousness." The Reformers asserted that sin completely obliterated God's image, while Catholic theologians viewed sin as inflicting a wound upon God's image in humanity. These theological disputes underscore the ongoing relevance and complexity of the doctrine of the *imago Dei* within Christian thought, especially in the classical theistic circle (2004).

Modern Age

The emergence of humanism and the advancements in science and technology during the nineteenth century sparked numerous controversies and biblical-theological criticisms regarding the understanding of the *imago Dei*. However, prior to the onset of modernity, the theology of the *imago Dei* remained a foundational concept in Christian theological anthropology. Throughout the history of Christian thought, various schools of thought on this significant topic have withstood individual critiques, such as iconoclasm, which posited that anthropomorphism could lead to idolatry.

However, in the era of modernity, the theology of the *imago Dei* faced a more prolonged and systematic critique. The very nature of humanity became a subject of inquiry and research across all fields of developing knowledge. This shift in intellectual focus marked a significant challenge to traditional understandings of the *imago Dei* and necessitated a reassessment of its theological implications in light of modern thought and scholarship.

Modernist Presuppositions

Several factors or underlying beliefs contributed to the rise of modernist criticism toward the theology of the image of God and Christian theology in general. These include the emergence of various humanist currents such as rationalism

(epitomized by figures like Descartes, Spinoza, and Leibniz), empiricism and critical philosophy (represented by thinkers like David Hume and Immanuel Kant), and existentialism (espoused by philosophers like Jean-Paul Sartre). Additionally, contemporary scientific advancements introduced a new worldview that challenged the traditional understanding of the cosmos as divinely ordered, while also promoting the idea of humanity as an autonomous entity separate from God.

As a result of these presuppositions, biblical anthropology was overturned, and the concept of the *imago Dei* was no longer supported. Consequently, thinkers such as Ludwig Feuerbach, Karl Marx, and Sigmund Freud asserted that it is not humanity that reflects the image of God, but rather God that is merely a projection of human ideals. Generally, modern theologians have proposed three main interpretations: spiritual, physical, and functional interpretations of the *imago Dei*.

Spiritual Interpretation

The spiritual interpretation posits that the image and likeness of God mentioned in Genesis 1:26-27 primarily consist of man's spiritual personality (Simango, 2016). August Dillman contended that the image of God in man is inherently spiritual, implying that man's spiritual essence embodies the divine image (Dillman, 1897). According to him, the concept of the image of God in man holds significance in New Testament literature, symbolizing the idea of religious, natural, and moral perfection (Dillman, 1897). Man, as a regenerated person, may have communion with God in his spiritual likeness (Ephesians 2:1, 5) (Enns, 2008). Man, in his moral likeness, may know and obey God's commands. Carl Friedrich and Franz Delitzsch both agreed with Dillman that the image of God in man is his spiritual character (Friedrich & Delitzsch, 1978). In exploring the nature of man's spirituality, they discerned the presence of the image of God. According to them, this divine image in man is discernible primarily within his spiritual essence. Furthermore, they stressed that man's spiritual personality should not be solely understood from a psychological perspective (Simango, 2016).

Physical Interpretation

The debates among modernist theologians also prominently featured the physical interpretation of the *imago Dei*. This perspective suggested that the image of God should be understood as an aspect of the physical or bodily constitution of humanity (Gulley, 2012). Notable figures advocating this viewpoint include the esteemed exegete Gunkel, as well as Swiss scholars Humbert and Köhler, and modern Jewish theologians such as Eberhard Jüngel. Gunkel, in particular, has long argued that the image of God is a human form comparable to that of God, asserting that humanity serves as the visible physical manifestation of the unseen, bodiless God (Erickson, 2013). Additionally, Mormons were among the most vocal proponents of the idea that God's image is physical. For them, this stance poses no significant difficulties, as they believe in the corporeal nature of God (Erickson, 2013).

Functional Interpretation

The functional interpretation emerges as the third school of thought regarding the theology of the *imago Dei* during modernism. This perspective posits that the

image of God is something that man does or performs as a function, with the most commonly described role being dominance over the rest of creation (Erickson, 2013). According to this view, the exercise of dominion is considered the content of God's image. One of the staunchest advocates of this perspective is Sigmund Mowinckel, who, like many commentators, believed that Psalm 8 draws heavily from Genesis 1. Mowinckel asserts that the image of God in man, as depicted in Psalm 8, is most prominently manifested in his dominion and authority over creation (Erickson, 2013). This interpretation finds favor among scholars like Richard J. Middleton, Gerhard von Rad, and Leonard Verduin. They also argued that the exercise of human domination over creation constitutes the very essence of the divine image (Richard, 1994).

Post-Modern Age

Identifying the image of God in the contemporary world is also a challenge, as it has been throughout Christian history. In fact, the *imago Dei* debate becomes even more varied and intense with the emphasis on the primacy of human reasoning.

Post-modernist Presuppositions on the Image of God

The subject of the image of God in the Bible has loomed large in the landscape of Christian theology throughout the twentieth and early twenty-first centuries. This prominence is attributed, in part, to the diverse explanations and definitions of the divine image inherited from theologians and classical philosophers of antiquity. Additionally, the rise of modernism and existential theology, with their emphasis on the event of encountering God, rejected the notion of an objective reference point that locates humanity in the world in relation to God. Furthermore, new ideas and influences emerged that were previously foreign to the discourse on the image of God. These include considerations such as the question of human sexuality (male/female) and feminism, which had been largely neglected in Christian theology for nearly two millennia (Ruether, 1992).

During this period, the theme of the image of God has been significantly influenced by various contemporary issues, including considerations surrounding disability rights and the emergence of Transhumanism. Additionally, ecological concerns, debates surrounding the prohibition of images in the Bible, and ethical questions pertaining to the concept of the divine image have all contributed to a more nuanced understanding of this theological concept. Despite the complexities introduced by these issues, several new interpretations have emerged from prominent Reformed theologians, particularly in Germany and Switzerland. Karl Barth's "relationship interpretation" and Emil Brunner's "free will interpretation" are among the noteworthy perspectives that have enriched the discourse on the image of God during the post-modern period.

Relationship Interpretation

Karl Barth posits that the image of God does not reside in the essence of man, rejecting the notion that the human mind or reason serves as a representation of God. Instead, he contends that the image of God is experienced through a connection that is not inherent in human nature. According to Barth, humanity embodies the image of God when it enters into a specific relationship with God. This relationship operates

both vertically, between man and God, and horizontally, among individuals (Barth, 1958).

Expanding on Genesis 1:26-27, Barth delves into the themes of human sexual differentiation and the concept of the triune God. He suggests that there exists an analogy, termed “*analogia relationis*,” between the Trinitarian nature of God and the differentiation of humanity into male and female. In this view, human existence is intimately connected to sexual differentiation, mirroring the Trinitarian connections within God. Consequently, male and female represent a mode of God's image (Erickson, 2013). While Barth's exegesis has garnered praise from theologians of the twentieth and twenty-first centuries, it has also faced criticism. Critics have raised concerns regarding the hierarchical order in divine and human nature, as well as the implications for feminist theology (Schussler, 1992).

Free Will Interpretation

Emil Brunner aligns the concept of the image of God with the notion of liberty or free will. His perspective draws inspiration from the works of Gregory of Nyssa and certain Semi-Pelagians and Pelagians who also emphasized the importance of free will. Brunner articulates two distinct meanings of the image of God to elucidate his approach: the material and the formal (Nyssa, np). The material aspect of the image of God pertains to free will and responsibility, highlighting humanity's capacity for autonomous decision-making and moral agency. In contrast, the formal image concerns the identity and ontology of human beings, encompassing their fundamental nature and being (Gulley, 2003). This interpretation finds resonance with some scholars, such as the French theologian Paul Ricoeur, who likewise affirm the significance of free will in understanding the divine image within humanity (1961).

Conclusion

The historical examination of the concept of the image of God reveals a tumultuous and evolving interpretation over time. From the Jewish Hellenistic period to the Middle Ages, various influences such as Greek and Platonic philosophy, as well as Hebrew thought, shaped the perspectives of Jewish scholars, Church Fathers, and scholastics regarding the *imago Dei*.

During these periods, there was a general consensus among many theologians that the image of God resided in the human soul, encompassing faculties such as reason, morality, and intellect, or in the divine Logos. However, with the advent of the Reformation, the Reformers diverged from the perspectives of the Fathers of the Roman and Greek Catholic Church and the scholastics. They narrowed the concept of the *imago Dei* to righteousness, often referred to as original justice. This shift in emphasis reflected the Reformers' theological priorities and their emphasis on the doctrine of justification by faith.

In modern and post-modern eras, numerous factors such as the ascendancy of reason and critical inquiry, advancements in science, and the proliferation of ideologies (such as existentialism, rationalism, feminism, etc.) have significantly shaped the reception of the concept of the image of God. As a result, three major

schools of interpretation emerged: liberal, conservative, and evolutionist (or scientific) views.

Conservative theologians tended to uphold the traditional interpretations of the Church Fathers (spiritual view), safeguarding their theological legacy. In contrast, liberal theologians often localized the image of God in human free will, the physical body, domination of the world, and relational aspects. On the other hand, according to scientific evolutionists, humanity is not created in the image of God but rather shares a common ancestry with animals through the process of evolution, stemming from the Big Bang. This perspective challenges traditional religious understandings of human origins and the divine image.

References

- Angus, Stewart. "The image of God in Man: A Reformed Reassessment." *Covenant Protestant Reformed Church*. <https://cprc.co.uk/articles/imageofgod/>.
- Aquinas, Thomas. (1952). *The Summa Theologica 1*, in *Great Books of the Western World*. Edited by HR Maynard. London: William Benton.
- Augustine. (1988). *On the Holy Trinity; Doctrinal Treaties; Moral Treaties*. In *Post-Nicene Fathers*. Vol. 3. Edited by P. Schaff. Grand Rapids, MI: Eerdmans.
- _____. *Confessions*. Grand Rapids, MI: Eerdmans.
- Barth, Karl. (1958). *Church Dogmatics*. Vol. 3. Edinburg: T&T Clark.
- Behr, John. (2006). *The Mystery of Christ: Life in Death*. Crestwood, NY: St. Vladimir's Seminary Press.
- Berkhof, Louis. (1996). *Systematic Theology*. Grand Rapids, MI: Eerdmans.
- Boersma, Gerald. (2016). *Augustine's Early Theology of Image: A Study in the Development of Pro-Nicene Theology*. First edition. London: Oxford University Press.
- Brunner, Emil. (1952). *The Christian Doctrine of Creation and Redemption*. Philadelphia, PA: Westminster Press.
- Burghardt, WJ. (1957). *The Image of God in Man according to Cyril of Alexandria*. Edited by Johannes, Quasten. Washington, MD: Catholic University of America Press.
- Calvin, John. (1960). *The Institute of the Christian Religion*. Edited by JT, McNeill. Philadelphia, PA: Westminster Press.
- Clement of Alexandria. *Stromata*, 5:87-88.
- Crouzel, Henri. (1956). *Théologie de l'image de Dieu chez Origène*, Theology of the image of God in Origène. Paris: Aubier.
- _____. (1992). "Le Dieu d'Origène et le Dieu de Plotin," in *Origeniana Quinta* (ed.) Robert J. Daly, Bibliotheca Ephemeridum Theologicarum Lovaniensium 105. Leuven.
- Didymus, *De Trinitate* 2, 12 (PG 39, 680).
- Dillman, August. (1897). *Genesis: Critical and Exegetical Presentation*. Edinburg: T&T Clark.
- Enns, Paul. The Moody Handbook of Theology. *Way Back Machine*. https://archive.org/stream/NJCBANGALORESPRICTUAL/the-moody-handbook-of-theology_djvu.txt.
- Erickson, Millard J. *Christian Theology*. Media Sabda org. <https://pingpdf.com/pdf-millard-j-erickson-media-sabda-org.html>.
- Fédou, Michel. (2013). *Les Pères de l'Église et la Théologie chrétienne*. Édition facultés jésuites de Paris.
- G, Von Rad. (1972). *Genesis*. London: SCM Press.
- Gabriel, Thomas. (2019). *The Image of God in the Theology of Gregory of Nazianzus*. New York, NY: Cambridge University Press.
- Gregory of Nyssa, *De Mortuis* (PG 46, 524).
- Gully, Norman R. (2003). *Systematic Theology: Creation, Christ, Salvation*. Vol 1. Berrien Springs, MI: Andrews University Press.
- Henry, Blocher. (1984). *At the Beginning: The First Chapters of Genesis*. Leicester: Inter-Varsity Press.
- Hillar, Marian. "Philo of Alexandria (c. 20 B.C.E.-40 C.E.)." *Internet Encyclopedia of Philosophy*. <https://www.iep.edu/philo>.
- Imperato, Robert. (2002). *Early and Medieval Christian Spirituality*. New York, NY: Cambridge University Press.

- International Theological Commission: Communion and Service. (2004). "The Human Person Created in the Image of God." Online Roman Catholic Church article.
http://www.vatican.va/roman_curia/congregations/cfaith/cti_documents/rc_con_cfaith_doc_20040723_communion-stewardship_fr.html.
- Irenaeus, (1953). *Against Heresies*. In *The Ante-Nicene Fathers*, edited by A. Roberts and J. Donaldson. Grand Rapids, MI: Eerdmans.
- Jacob, Neusner and William Scott Green, eds. (1996). *Dictionary of Judaism in the Biblical Period: 450 BCE to 600 CE*. Vol. 2. New York, NY: Macmillan.
- Jacob, Neusner, Alan J. Avery-Peck and William Scott Green, eds. *The Encyclopedia of Judaism*. Vol. 5 Leiden, The Netherlands: E. J. Brill.
- Keil, Carl Friedrich and Franz Delitzsch. (1978). *Commentaries on the Old Testament in Ten Volumes*, Vol. 1. Grand Rapids, MI: Eerdmans.
- Latin Christianity: Its Founder, Tertullian*. Vol 3 of *Ante-Nicene Fathers*. Grand Rapids, MI: Eerdmans.
- Linda, Woodhead. (2004). *An Introduction to Christianity*. New York, NY: Cambridge University Press.
- Lossky, Vladimir. (1976). *The Mystical Theology of the Eastern Church*. Crestwood, NY: St. Vladimir's Seminary Press.
- Luther, Martin. (1955). *Luther's Works*. Vol. 1, *Lectures on Genesis*. Edited by Jaroslav Pelikan. St. Louis, MO: Concordia.
- McGrath, Alister E. (2011). *Christian Theology: An Introduction*. Hoboken, NJ: Wiley-Blackwell.
- Middleton, Richard. (1994). *The Liberating Image? Interpretation of the imago Dei in Context*. Christian Scholars Review 24.
- Ricoeur, Paul. (1961). "The image of God and the epic of man." Translated by Gringas George. *Cross Currents*.
- Ruether, Rosemary Radford. (1992). "Motherearth and the Megamachine: A Theology of Liberation in a Feminine, Somatic and Ecological Perspective," in *Womanspirit Rising: A Feminist Reader in Religion*, ed. Carol Christ, et al. San Francisco, CA: Harper Collins.
- Schussler, Fiorenza Elizabeth. (1992). "Feminist Spirituality, Christian Identity, and Catholic Vision," in *Womanspirit Rising: A Feminist Reader in Religion*, ed. Carol Christ, and al. San Francisco, CA: Harper Collins.
- Simango, Daniel. "The Imago Dei (Gen 1:26-27): A History of Interpretation from Philo to the Present." *Studia Historiae Ecclesiasticae*. (Vol. 42 n.1 Pretoria 2016)
http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1017-04992016000100014.
- Solignac, Aimé. (1971). *Pères de l'Église (Fathers of the Church) in Dictionnaire de Spiritualité Ascétique et Mystique*. Paris: Beauchesne.

SOCIAL REFORMS IN SOUTH INDIA DURING THE EAST INDIA COMPANY RULE WITH SPECIAL EMPHASIS ON MISSIONARY WORKS¹

Franklin Samraj, PhD

Abstract

This study examines the social transformation of South India (1600-1857) under the East India Company, emphasizing the impact of Christian missionary activity. Though primarily commercial, the policies of the Company, especially after the Charter Act of 1813, enabled missionaries inspired by William Carey and William Wilberforce to work among local communities. Missionaries such as C.F. Schwartz, Bartholomäus Ziegenbalg, and Robert Caldwell advanced education, health, and social justice, empowering women and marginalized groups through schools, hospitals, and vocational training.

Situated within the intellectual context of British Orientalism and Evangelicalism, the study shows how faith and reform converged to reshape South Indian society. Missionary efforts not only complemented but also transcended colonial objectives, laying the foundations for the contemporary educational and humanitarian systems of India.

Keywords: East India Company, South India, Christian missions, social reform, education, empowerment, colonial history.

Introduction

In recent times interest in the affairs of the East India Company and its effect on India and the world as the first multinational organization of great significance has brought several issues into focus for study. South India in 1600 A.D, represented a vibrant community, with the then-existing social norms and values which were distinct and unique to the community living there; as can be seen from the perspective of the all-India cultural norms and values. However, this status was broken with the arrival of the East India Company in 1600. This research shows the gradual change brought in South Indian society with the arrival of the East India Company with its undertakings and the resultant reforms of these changes on the society with emphasis on missionary works. Many know of the East India Company and its effect on India. But the paramount importance is also to see the impact of

¹ Published posthumously in honour of Dr. Franklin Samraj, from the drafts and notes he left. Certain sections remain incomplete but are included to preserve his insights.

missionary works and their value to Modern India; to learn lessons from those early pioneers of social work, the methods and means used for social change and reforms; and to apply those lessons of history to today's social issues.

Significance of the Study

Missionaries were initially not permitted to enter India as the company's policy prohibited any proselytizing works but eventually were allowed to come only after the renewed Charter of 1813 which had a clause for supporting missionaries' works, by the efforts of philanthropist Wilberforce and the general cause for Gospel propagation with the proclamation of the document of William Carey - *An Enquiry into the Obligations of Christians*. With the Reformation Movement waning in Europe in the seventeenth century, the Christian churches, both Protestants and Catholics, organized Societies and Orders, through which missionaries were allowed to labor in various parts of India, ministering to different cultural and language groups of people regarding their social welfare and identity. The changes brought a revolutionary change in their fraternity and integrity to their identity. This is the significance of the study.

The Scope of the Study

The scope of this study is to look at the East India Company and its works from its inception in 1600 to 1857 with special reference to South India with its people and the empowerment given to the downtrodden women and the marginalized members of the society by the social work of the numerous missionaries stationed in different mission stations allowed by the East India Company.

Comparisons can be made between Medieval Europe and South India and the Indian context as a whole. In this one can see the effects of illiteracy, ignorance, and ignoble governments in both these areas. These social evils were eradicated, and the people were emancipated from their effects by Renaissance and Reformation leaders of Europe. These great humanistic movements came as a result of the impact of the Crusades between Christians and Muslims and from the age of exploration and discovery experiences. The knowledge that was derived by the Europeans during these movements had their effects on India, through the East India Company's colonial endeavors along with the missionaries who labored in India as residents in many mission stations. Thus, the origins of the Indian Renaissance and the Industrial Revolution can be traced to the resurgence brought by the social transformation of the Indian villages by the effects of education and empowerment given to the marginalized and the discriminated section of the society by missionary exertions.

East India Company

The initial formation of the East India Company was primarily for the interests of English commercial agents who were competing with the European counterparts that had formed rival company groups for business transactions. A large number of goods were transported with many ships plying on the newly developed sea routes. The primary essence of these businesses was for profit. To safeguard the company's profits, large fortifications were constructed on alien soil requiring the stationing of

security guards and army soldiers. Very soon, the business community consisted of many officers, and families with the presence of soldiers, forming themselves into a well-defined community on alien soil. Being far away from home, they were naturally in need of spiritual guidance and the receiving of Christian sacraments of their religious convictions, as they had received from their home churches in England and Europe.

Thus, as sacraments were essential for an average churchgoer, the East India Company began to recruit regular chaplains to enable the company residents to have these spiritual exercises. So, the arrival of the chaplains forms a very interesting and important aspect of the East India Company's growth and development.

Gradually, the chaplains who were first of all called upon to care for the spiritual needs of the Company personnel began to now fill the responsibility of reaching out to the neighbouring communities of the English settlements as well. It is in this context that the Company was now in a dilemma as to how to deal with these other communities, i.e., the chaplain's role, responsibilities, and interactions with the other local natives around them. These influences brought many changes to the communities as can be seen from the effects of the chaplains' work within the Company's regional territories. That is, the growing number of natives who were engaging with the commercial work of the company and their independence derived from their earnings and social status.

The understanding of the parameters and dynamics of social change along with the problems that were peculiar to South India as viewed from today's perspective is shown. The change brought about was in essence, the meeting of the occidental civilization with the oriental civilization in southern India, where the diverse values of both these played upon each other affecting both. This research concentrates on the effect it had on South Indians primarily.

The company's primary role was trading and therefore, it was profit-oriented, and as such the use of Indian commodities, and Indian labor resulted in patterns of change in the South Indian commercial dealings. Changes in this aspect brought about the need for political control for greater maximization of profits which led to the annexation of territories for political control with the use of the company's army. This in itself brought major changes as far as the ruling class was concerned in that, changes were brought about in the structure of the ruling class, i.e. the development of the new working class of Indians loyal to the promotion and growth of the East India Company and relegating the existing local ruler to a lower status, as part of the new social fabric in South India.

Rev. John Hall was the first chaplain who arrived in India. He came in 1607, accompanying Sir Thomas Roe, the royal emissary to the Moghul Court of Jahangir. Hall soon died, and hence Roe applied for another chaplain. The principle that Roe enunciated in his demand, later, became the cornerstone of the Government policy concerning the chaplains. He wrote, "I cannot live the life of an atheist. Let me desire you endeavor me supply for, I am not to abide in this place, destitute of God's Word, and Holy Sacrament." Thus, through the intervention of Roe sending chaplains, in 'the merchant ships became a normal practice, to prevent the English who sailed for India from becoming "destitute of God's Word, and Holy Sacrament."

Since 1614 chaplains arrived in India periodically. They were stationed in Surat and Massulipatam. Though a chaplain arrived in Madras in 1647, the first resident chaplain, Master Isacson arrived in Madras in 1647. He was sent there for specific duties such as baptizing children and solemnizing marriages of the servants of the East India Company and was prohibited from taking up any job other than this.

The first official document concerning the appointment of chaplains in India came out in 1657. The Company resolved to appoint a chaplain to all their Indian factories. Given this, in February 1657 it addressed a circular to the universities of Oxford and Cambridge to provide suitable chaplains.

The chaplains who came to India during the first six decades of the Company's establishment in India were not the appointees of the Bishop of London, or of the Archbishop of Canterbury. They had hence no strong official connection with the Church of England as such. The authorities of the Company now and then sent circulars to the university centers directly for applicants for the post of chaplain. Those who had their letters of orders and their general license as preachers were at liberty to offer their services to the Company. If the Company was satisfied with their character, scholarship, and ability, it was at liberty to employ them on its ships.

The office of the chaplain ranked third in the factory and was paid 50 pounds sterling a year and a bonus of 50 pounds, for his good behavior. The chaplain was a prominent person in the factory life. He received 100 pounds a year, together with his food and convenient lodgings. There was also a peon to attend him in the chamber and the command of a coach or horse at any time if he wished to make use of them. He also received gifts from the merchants and masters of sailing ships and gratuities for officiating at marriages, baptisms and burials. He was required to say prayers morning and evening, and he had to visit the young people in the subordinate factories on the Malabar Coast at Carwar and Calicut.

The 1698 charter did not restrict the role of the chaplain merely to the caring for the spiritual needs of the servants of the Company. It provided also for the "evangelizing of the local Gentiles, the local natives working within the Company and The Portuguese living within the premises of the company. The latter role of the chaplain, however, gradually became defunct. The chaplaincy, in the beginning, was military in its character and organization as the chaplains were actually army chaplains with military rank and military pensions. Their duties were understood by the Government to be confined to the servants of the state. These chaplains ceased to take an active part in the proselytization of the country because this was contrary to the policy of the Company which had always been very sensitive to accusations of interference in the religious feelings of the native people.

After about a hundred years of the company's existence, the more dominant power of change was brought by the missionaries who had come with or without the company's permission. Their landing and stay and work in South India brought about a more mass-based social change. These people are also referred to as the missionaries who voluntarily came from the many churches of Europe and England. The granting of permission by the company and allowing them to function in different areas can be seen as a major factor of permanent change in the ethos of the South Indian Community. The establishment of local societies and trusts under the management of local community leaders did help in the process of development of

leaders of society in South India. This contributed to the rise of collaborative works of native activists with the missionaries.

Missions and Associations
American Baptist Mission
American Dutch Reformed Church
American Lutheran Church
American Mission
Bible Women's Association
Church of Scotland Mission
German Evangelical Mission
Heidelberg Catechism
Liturgy of the Dutch Church
Missionary Board of the United Presbyterian Church of Scotland
Church of Scotland
Society for the Propagation of the Gospel
Tranquebar Mission, 1706
American Missionary Association, 1846
Zenana Missions, 1840
American Reformed Mission, 1819
Basel Mission, 1815
Bible Christian Mission, 1800
Christian Missionary Fellowship International, 1946
City Mission, 1826
Student Volunteer Movement, 1886
Young Men's Christian Association (YMCA), 1844
Young Women's Christian

The Charters and programs of many of these missionaries were derived from the various mission societies, whose objectives and constitutions dealt with aspects such as education, vocation, human dignity, ethical values, and religious conversions. The sum total of all these aspects bore fruit in the formation of various developmental

activities such as patterns of education with emphasis on many boarding schools being set up, livelihood patterns involving agriculture sectors, and vocational patterns were drastically changed bringing in new methods of livelihood. The value of classes in society was questioned, and suitable modifications were made that aligned with their newly accepted changes as given by the chaplains, about universal human dignity and human values.

Notable Examples of Missionary Contribution

The value of the works of many missionaries both from Catholic and Protestant churches have been recognized by the government of modern periods. The list of all the missionaries is provided. The missionaries had their fervor for social change from the rulers and monarchs of the colonial lands they came from. They also had a close connection with the East India Company rulers who were often at war with the native rulers. The missionaries were thus an asset in playing a role of compassion and trust between the Company and the local rulers as seen in the work of Schwartz at Tanjore. Robert Caldwell is well known for his work on the understanding of the Tamil Language and the value of its literature for the Tamil people. This work on the appreciation of Tamil language has been recognized by the UNO and the Tamil Nādu Government by a recent resolution making Tamil recognized as one of the ten living classical languages of the world. The pioneering work of Ziegenbalg of Tranquebar with his translation of the Bible into Tamil language is a great work of importance in world literature. The contribution of Charles Rhenius as a church leader who was fearless and forthright in his work is recognized. The native leader A.N. Sattampillai for his courage in establishing the Nattu Sabai is of great value to Indian Christianity.

The Societies' Orders and Organizations for Missions

Church Missionary Society
Indian Missions of Christian Knowledge Society
Leipsic Missionary Society
London Missionary Society
Wesley Missionary Society
Church Missionary Society in India, 1799
Church of England Zenana Missionary Society, 1880
London Missionary Society, 1795
Society for Promotion of Female Education in the East, 1875
Foreign Christian Missionary Society, 1876
Colonial Missionary Society, 1836
SPCK – Society for Promoting Christian Knowledge, 1698

LMS - London Missionary Society, 1795
The British and Foreign Bible Society in India, 1804
American Bible Society, 1816
Lutheran Mission Society
Church of England missionary societies, 1799
American Christian Missionary Society, 1874
Berlin Missionary Society, 1824
Church Missionary Society of India, 1799
Colonial Missionary Society, 1836
London Missionary Society, 1795
The Mission Society, 1984
Norwegian Santal Mission, 1867
Paris Evangelical Missionary Society, 1822
Society to Promotion of Female Education in the East, 1875
Society of Propagation of the gospel, 1701

Missionaries and Their Location of Work

Missionary Names	Mission Stations	Time Period
Andrew Bell	Madras	1753-1832
August Friedrich Caemmerer	Tranquebar	1767-1837
Robert Caldwell	Tuticorin	1814-1891
Charles Mead	Nagercoil	1800-1821
Christian Friedrich Schwartz	Tanjore	1726-1798
Ida Scudder	Vellore	1870-1960
Constantine Joseph Beschi	Madurai	1680-1747
King Christian VI	Danish Monarch and Norway	1699-1746
King Frederick IV	Prussian Monarch	1795-1861
Heinrich Plütschau	Tranquebar	1676-1752
Thomas Gajetan Ragland	Sivagasi	1815-1858

Charles Theophilus Ewald Rhenius	Tinnelvely	1790-1838
William Tobias Ringeltaube	Travancore	1770-1819
St. Francis Xavier	Goa	1506-1552
Bartholomäus Ziegenbalg	Tranquebar	1682-1719

The works of Ragland at Sivakasi Father Beschi at Tiruchirappalli, Bishop Heber and his schoolwork, and the medical work of Charles Mead at Nagercoil reveal the extent of real social change in the lives of the people in Education and medical work. The number of schools established by missionaries were centers of social transformation with the values of education for equality and fraternity. In the arts also they played a pivotal role with the introduction of many a musical instrument which became part of the Indian musical world. The violin is a classic example of its use in Carnatic music with the first use in the courts of the Tanjore King.

The resultant change in the social structure was paramount, causing a great wave of social transformations and this in turn brought about an upheaval to bring about social justice in many spheres of community life. While the company was in full control politically, the missionaries and their influence in different areas formed the bedrock of social stability which promoted the change with the support of the East India Company.

Scholars differ in their opinion about the religious policy of the Company. Stephen Neil holds that it was inconsistent and self-contradictory. K. S. LaTourette says the Company was anti-missionary. Missionaries like C. Buchanan complained that the Company was supporting the native religions. Company officials like A. Mayhew claimed that it followed a policy of enlightened neutrality. However, it seems that the claims of these scholars do not correspond to reality. Hence, this work examines how far these contentions are warranted by documentary evidence.

However, the Company was always ready to accept those missionaries and their endeavors, provided their activities would not risk the interests of the Company. Like the East India Company which first rejected William Carey, then took him back for its service when it found him useful. The Company used his scholarship in many ways: As a literary adviser and translator to the Government, as a grammarian and lexicographer, as joint keeper of the horticultural garden, and as a member of the newly founded Royal Asiatic Society. He was also given the charge of training future rulers of British India in piety and sound learning by appointing him to the Fort William College, which Wellesley established. Carey's career as a useful missionary to British design reached its peak in 1829, in the formulation of the Regulation of Sati, collectively by Rajaram Mohan Roy and Lord William Bentinck. A similar story and account is seen in the life of missionary Schwartz of Tanjore in the courts of Raja of Tanjore, the Royal Serfoogee family, whose honesty and courage helped in the resolution of many political and social issues dealing with wars, famines, and political successions.

Orientalism, a great force was yet another important trend that gained ground in England during this period. The Orientalists were the people who esteemed Indian culture and religion. They understood the Hindu culture and religion as a highly

civilized and advanced one. Hence, they wanted to preserve and impart them to the Indian people, instead of the Western culture and way of life. They argued that the Indian people had a way of life that the people, valued very much, though it was very different from the Western civilization. Grose noted that at the central core of Hinduism was a universal religion, besides being a religion of heart. Scraft, another Orientalist, held that the Hindus accepted those truths that came from the harmony of the universe; believed in one supreme God; served him through charity and good works. John Shore in his early years understood the Hindu religion as purely deistic, with a wonderful resemblance to the doctrines of Plato.

Orientalists like Crawford believed that it was not Egypt or Greece but India as the original home of Arts and Science; the Hindus were a polished and civilized nation even before them. William Hodges urged his countrymen to cease despising Hindu architecture and sculpture, simply because it did not conform to the Greek rules of beauty. Canons other than those of the western world were also possible in judging and tasting arts and architecture. Robertson proposed that the Hindu laws should be ranked with the system of jurisprudence of most highly civilized nations. The caste system, in his view, was a marvelous instrument for ordering and adjusting Hindu society. William Jones appreciated the antiquity, wealth and variety of the Indian literature and the profundity of its philosophical concepts. Thus, the Orientalists provided several arguments which dismissed the arguments of those who were calling for continued British presence in India to rejuvenate and to make it materially and ethically progressed. Besides they showed that “India had no need to import religious doctrines from the West” to improve its religious and social systems. Such ideas grew among the Orientalists and others created a general feeling among the English that Christian missionary activity in India was not so urgent a task. However, the Evangelicals were not ready to give up their position, and continued to argue for the urgent conversion of India into Christianity.

Later, Evangelicalism appeared in England as part of the socio-religious movement in Britain. There were the reformist groups in the Anglican Church. These groups were later split into several subgroups, some of which broke away from the mainstream Church of England. These splinter groups that were generally denoted as ‘dissenters’ continued their reformist activities from outside the Anglican Church. But an influential group of businessmen, nicknamed the Clapham sect, continued to remain within the Anglican Church and tried to reform it and the society at large from within.

Among the officials of the East India Company, many were influential persons who were either members or supporters of this group. But the similarities and identities that these groups maintained in their thinking and ideologies helped them to join and work together as a pressure lobby in the English society. They were mainly utilitarian in—their socio-economic thinking, which they extended also to the religious realm. They had their own missionary organization in England, the Church Missionary Society. However, the official Anglican Church leadership was often reluctant to recognize them and their ideologies. This invited friction between the Evangelicals and the officials of the Church of England.

The missionaries and chaplains got full support for their work in the latter period of the East India Company rule as now the East India Company resolved to endeavor to advance the spreading of Gospel in India and the settlement of an

orthodox godly minister such as one who may instruct and teach the people that shall be committed to his charge in building them up in knowledge of God and the Faith of the Church. "We do therefore make these our desires known unto you in treating that you would be pleased to afford us your assistance herein by recommending unto us for this purpose some such persons whom you shall approve and declare to be a fit instrument both willing and able to undergo and manage this great and good work."

The empowerment of the missionaries and chaplains by the East India Company in the latter part of its existence during 1800s, along with the other factors let to many incidents of protests in the south, ultimately leading to the closure of the East India Company in 1857. However, their involvement in educational work with the help of the educationists from the Church brought an integration of the society on the basis of 'skill' rather than 'class.' Next their contribution in the advancement of social justice is commendable, clearing the way for the lower classes to be amalgamated in the society as equal members. Further, the cooperative efforts of different mission societies from different church denominations for common endeavors initiated the spirit of 'ecumenism' - a sense of comity. Many a war between the Muslim and the Hindu rulers were averted by the role of a courageous and an honest missionary like Rev. C.F. Swartz. Rehabilitation works during famines were entrusted to trustworthy chaplains and missionaries. In Madras a very famous successful educational model was developed known as the 'Bell System of Education', where a student used the sand below instead of a slate to teach fellow students and this was used as a successful method in England too. The students who learned to write were further used as people of service in the company to keep and produce written and printed records of documents for trade and commerce.

This understanding has shown that the great mass movements in the community for different groups of people brought changes that gave many new hope for their lives. The transformations that resulted were from the functioning of boarding schools, mission hospitals, vocational industrial schools, orphanages, relief centers etc. run by the missionaries which empowered them with skills to be independent and recognized their personal value in the wellbeing of the society of which they were an integral part. This emancipation and the resultant independence were largely by the persistent and consistent works of the thousands of resident missionaries who with the collaborations with like-minded local workers helped to alleviate the needs of their fellow human beings, especially the untouchables orphans and widows.

The rise of the Indian national movement can be seen to be supported by the rise of the new class of enlightened Indians and educated Indians who took up further studies in different disciplines for providing leadership roles in various areas of social work. Many modern India's current school systems and collegiate organizations can trace their origins to the work of many resident missionaries. What is needed is to understand that the hard work of these early pioneers in their work of providing the values of human rights, dignity and universal values of humanity had provided the founding of modern India with its potential for its role in the comity of nations of the world today.

With the advent of India after the British departure in 1947, the Indian Christian churches reorganized themselves into four blocks, namely CSI, CNI, RC and a few remaining denominations of Christian identity such as Seventh-day

Adventists, Methodists, Pentecostals and a number of small local congregations with their own identity especially in urban centers. These congregations have to a large extent managed themselves without much foreign assistance and are growing in stature. However, it is seen that the growth has been stunted for various reasons such as lack of mission focus, negligence in management systems, competition from rival religious factions in the community, and issues of corruption in the system of governance.

The need of the hour is to look back and see the origin of the causes for the change in the social status of church communities and congregations and see the role played by the unselfish works of missionaries who followed the principles from the Word of God and the example set by Jesus Christ in His earthly ministry.

In the growth of every church in India there has been local church leaders as well, who were hardworking to bring social justice and social harmony to the community. In identifying their works, we can see the path taken in the road for the good of the nation and the challenges of the work ahead, for engaging and teaming up for the service of humanity and mankind. Thus, the study and understanding of missionary work in south India is for the greater good of being aware of the past for understanding the present and planning for the future.

Showing the Extent, Population and Languages with the Missionary Statistics of the Several Countries of South India to the End of 1857 Designed to Illustrate the Paper on the Unoccupied Field of Missionary Labour

	Language s	Countri es or District s	Extent in Square Miles	Popul ation	Missionary Societies	European and East Indian Missiona ries	Native Ordained Ministers	Adherents and constant tenant on Public Worship	Baptized	Commissions	Schola rs and Studen ts to School s and Institu tions
4	Malayalam	Malabar	6060	1511909	German Evangelical Mission	13	0	1094	1218	491	1183
		Cochin and Travancore	5923	1069187	Church Missionary Society	9	6	5499	5385	1241	2330
					London Missionary Society	1	0	1695	333	101	582
		Total Malayala	11,983	2581096		23	6	8288	6936	1833	4095
5	Tamil	Madras and Chinglepet	3020	1303162	London Missionary Society	4	0	440	224	113	1003
					Church Missionary Society	1	0	592	587	229	678
					Society for the Propagation of the Gospel in Foreign Parts,	3	0	931	957	111	265
					American Board for Mission	2	1	91	91	56	501
					Wesley Missionary Society	4	0	630	200	132	363
					Free Church Scotland Mission	6	2	210	139	65	363
					Church Scotland Mission	2	0	159	131	48	861
					London Mission Society	1	0	670	670	582	53
						23	3	3723	2999	1336	915
		Arcot, Salem, and Coimbatore	21122	3137835	American Reform Protestant Dutch Church	4	0	510	448	149	157
					London Missionary Society	4	0	450	336	81	905
						8	0	960	784	230	1062
		South Arcot	7609	10000035	Society for the Propagation Gospel in Foreign Parts	0	1	167	167	53	69
					Leipzig Lutheran Mission	1	0	170	170	74	20
						1	1	337	337	127	89
		Trichinopoly and Tanjore	7148	2385282	Society for the Propagation Gospel Foreign Parts	9	1	4624	4372	1593	1139
					Wesley Missionary Society	4	0	410	100	26	271
					Lepzeig Lutheran Mission	9	0	3927	3927	2573	1027
						22	1	8961	8399	4192	2437
		Madura	10700	1756791	American Board for Missionary	11	3	5347	300	947	878
					Society for the Propagation Gospel in Foreign Parts	1	0	555	512	77	54
						12	3	5902	812	1024	932
		Tinnevely and South Travancore	6487	1437850	Church Missionary Society	12	9	28152	18091	4021	7431
					Society for the Propagation Gospel in Foreign Parts	8	3	13007	9243	1187	2224
					London Missionary Society	6	0	14673	2205	775	6015
						26	12	55832	29539	5983	15670
		Total Tamil	56086	20020955		92	20	75715	42870	12892	26105
		Grand Total	335315	42035508	14 Societies	187	31	91251	57352	10036	38647

References

- A Hundred Years in Travancore 1806-1906* (with Hacker, I. H.). (1908). H. R. Allenson, Limited.
- A Manual of the Tinnevely District in the Presidency of Madras* (with Stuart, A. J.). (1879). E. Keys.
- Carne, J. (1832). *Lives of Eminent Missionaries* (Vol. 1). Fisher, Son & Jackson.
- Craufurd, Q. (1790). *Sketches Chiefly Relating to the History, Religion, Learning and Manners of Hindoos* (2nd edn, Vol. 1). T. Cadell.
- East India Company. (1812). *Correspondence and Proceedings in the Negotiation for a Renewal of the East-India Company's Charter*. Black, Parbury and Co.
- Fenger, J. F. (1863). *History of the Tranquebar Mission* (E. Francke, Trans.). Evangelical Lutheran Mission Press.
- Fraser, H. (1885). *Memoir and Correspondence of General James Stuart Fraser of the Madras Army*. Whiting & Co. Limited.
- Gardner, J. (1848). *Memoirs of Christian Missionaries; with an Essay on the Extension of the Missionary Spirit*. John Johnstone.
- Grose, J. H., & Carmichael. (1772). *A Voyage to the East Indies* (Vols 1–2). S. Hopper.
- Howarth, W. (2010). Advocates and Arbiters: Travancore and Mysore Missionaries as Public Petitioners and Champions of Social Justice (1806-1886). *Journal of Postcolonial Theory and Theology*, 1(2).
- Kaye, J. W. (1853). *The Administration of the East India Company: A History of Indian Progress* (2nd edn). Richard Bentley.
- Late Resident of India. (1839). *The Connexion of the East-India Company's Government with the Superstitious and Idolatrous Customs and Rites of the Natives of India*. Hatchard and Son, Piccadilly.
- Marshman, I. C. (1859). *The Life and Times of Carey, Marshman, and Ward embracing the History of the Serampore Mission*. Longman, Brown, Green, Longmans & Roberts.
- Norton, G. (1841). *Rudimentals; being a series of discourses on the principles of government, the government of England, the East India Company, the Court of directors, the Board of control, the system of government in India, and on jurisprudence or the principles of administrative justice: Addressed to the natives of India*. J. B. Pharoah.
- Peason, H. (1835). *Memoirs of the Life and Correspondence of the Rev. Christian Frederick Swartz: To Which Is Prefixed a Sketch of the History of Christianity in India* (2nd edn, Vol. 1). J. Hatchard and Son.
- Pekowne, T. T. (1861). *A Memoir Rev. Thomas Gajetan Ragland, B.D.* Seeley, Jackson, and Halliday.
- Penny, F. (1904). *The Church in Madras*. Smith, Elder, & Co.
- Penny, F. (1912). *The Church in Madras*. Smith, Elder, & Co.
- Pigot, G. B., Khan, M. A., Al-Din, U. al-M. A., & Arcot, N. (1777). *Original Paper Relative to Tanjore*. T. Cadell.
- Pillai, A. R. (n.d.). *The Diary of Ananda Ranga Pillai* (J. F. Price & K. R. Achari, Trans.; Vols 1–12).
- Rhenius, J., & Rhenius, C. T. E. (1841). *Memoir of the Rev. C. T. E. Rhenius*. James Nisbet and Co.
- Richard, L. (1899). *The History of the London Missionary Society* (Vol. 1). Oxford University Press.
- South India Missionary Conference. (1858). *Proceedings of the South India Missionary Conference, held at Ootacamund, April 19th—May 5th, 1858*. D.P.L.C. Connor.
- Teignmouth, C. J. S. (1843). *Memoir of the Life and Correspondence of John, Lord Teignmouth* (Vol. 1). Hatchard and Son.
- The Life of Christian F. Swartz: Missionary at Travancore. A.D. 1750-1798*. (1855). Seeley, Jackson, and Halliday.
- Tytler, A. F. (1816). *Considerations on the Political State of India* (2nd edn, Vol. 1). Black, Parbury and Allen.
- Wade, J. (1832). *The Extraordinary Black Book: An Exposition of Abuses in Church and State, Courts of Law, Representation, Municipal and Corporate Bodies; with a Précis of the House of Commons, Past, present, and to come*. (A New). Effingham Wilson, Royal Exchange.
- William, R. (1791). *An Historical Disquisition Concerning Ancient India*. Messrs. G. Burnet, L. White, P. Wogan, P. Bryne, A. Grueber, W. Perter, J. Moore, J. Jones, B. Dornin, W. Jones, R. White, J. Rice, R. M'Allister, A. Porter, and P: Moore.
- William Wilberforce. (2025). In *Wikipedia*. https://en.wikipedia.org/w/index.php?title=William_Wilberforce&oldid=1316071971

HEALTH AS THE CORNERSTONE OF A HARMONIOUS SOCIETY: EVALUATING ITS ROLE AS A PRIMARY INDICATOR OF SOCIAL WELL-BEING

Jharendra Bishwakarma, Ph.D., Department of Sociology, Spicer Adventist University.

Carol Kingston, Ph.D., Department of Education, Spicer Adventist University

Abstract:

Health is something all cherished about and is a critical component of individual well-being; its role as a primary indicator of social well-being that is unexplored in the theoretical discourses. This paper proposes a theoretical framework that views health as the primary factor and indicator in determining social well-being. This paper strives to highlight the interconnection between population health, productivity, social cohesion, and political stability. The beginning of the study reviews historical and contemporary perspectives on social well-being and critiques the models' limited attention to health. After that, it provides a thorough biopsychosocial framework that places health at the core of social harmony and theorizes the ways in which health affects other social indicators. The implications of this biopsychosocial framework are discussed in terms of how they might alter community development, public policy, and theoretical perspectives on social well-being. In addressing potential criticisms and outlining directions for future study, the paper ends by highlighting the revolutionary effects of embracing a health-centric approach in theory and practice.

Keywords: Social well-being, Community health, Health and societal harmony, Civic engagement, Quality of life

Introduction

Background of the Study

Human society is a structure built on networks of dependent individuals. The dependency in any form, be it physical or mental, the human ulterior motive is to gratify those needs. The individuals come together to form a community that connects itself to this network and make exchanges. When an individual is a part of the structure in a society, his or her well-being has direct effects on the others who are connected to the network too. An individual's health transits to affect others and thus takes the face of social concern. Thus, the need for discourse on social well-being becomes a much-discussed topic. Social well-being is a multidimensional concept that includes the quality of life and overall health of a community. It shows the extent to which the individual and the groups within the community feel connected, valued, and supported. Social well-being is essential when it comes to the development of a

harmonious society, which leads to positive relationships, mutual respect, and a sense of belonging to the community. When it is prioritized, society is likely to experience higher cooperation, a lower level of conflict, and mutual satisfaction. According to Keyes (1998) Social well-being is seen as an important aspect, which influences the degree of harmony and cohesion within the society leading to overall societal development.

OECD (2011) highlights basic indicators of social well-being, economic performance, education level and political stability that play a crucial role in societal harmony. The Economic performance of any country shows how it is the access of societal resources and the overall living conditions, thus seen as a fundamental component of social well-being. The matrix such as GDP and employment are often seen as an assessment or display of economic performance (Stiglitz, Sen, & Fitoussi, 2009). It is a well-known fact that education plays a great role in cognitive functions such as decision making. It is not surprising that it is another important key indicator as per UNESCO (2014) that contributes to social well-being by facilitating the growth of human capital, fostering social mobility, and enhancing civic engagement. In order to promote a feasible environment for economic growth, human rights and public harmony, political stability is essential (Kaufmann, Kraay, & Mastruzzi, 2010). Though, these are traditional key indicators that are widely talked about in terms of social well-being; however, they might, however, fail to recognize the significant impact health can have on the overall harmony and stability of society.

Rightly pointed out by Marmot (2005), health is often seen as an individual's well-being and is yet unexplored as in terms of social well-being, in contrast to traditional measures like economic performance or political stability. Health has direct impact on social cohesion, productivity, societal harmony and overall quality of life. The entity such as the World Health Organization showed a great concern over health and the Commission on Social Determinants of Health was set up in 2005 to study what could be done to promote health equity and foster a global movement in terms of societal health. Research suggests that communities experiencing better health outcomes typically have reduced levels of social discontent, better economic growth, and more robust communal relationships (World Health Organization, 2008). Despite this, health being the foundational elements of well-being, it remains underappreciated in many theoretical frameworks requiring further investigation into the ways in which public health programs can serve as primary tools for achieving societal harmony (Kickbusch, 2012).

Problem Statement

There is a lack of theoretical frameworks that position health as a primary indicator of social well-being. The relationship between health and social well-being is crucial and this gap limits how our knowledge in understanding shapes societal progress. Here are key aspects and implications of this deficiency these aspects will help us understand the need for healthy living:

Historical Oversight

Traditional Models: Many existing models of social well-being focus primarily on economic, educational, and environmental factors, often sidelining health

as a core component. Health has often been ignored and not in the limelight of an individual's social well-being.

Health as a Secondary Outcome: Health is frequently viewed as an outcome of social conditions. It is an integral part of social well-being, leading to an incomplete understanding of individual and community health dynamics. Health is the priority of mental wellness for an individual.

Theoretical Gaps

Limited Integration of Health Metrics: Current frameworks, such as the Social Determinants of Health, acknowledge health's role but do not fully integrate it into broader social well-being assessments.

Absence of Multidimensional Approaches: There is a lack of models that concurrently address physical, mental, and social health as interconnected factors that contribute to overall social well-being.

Inadequate Empirical Support

Disconnection from Data: Insufficient empirical research specifically links health outcomes directly to indicators of social well-being, leading to gaps in understanding and policy development.

Underexplored Case Studies: While numerous case studies illustrate health disparities and their effects on social contexts, they often lack a strong theoretical foundation that incorporates health as a primary variable.

Cultural and Contextual Limitations

Variability in Health Perceptions: The impact of cultural differences on health and social well-being is often overlooked, with few frameworks addressing how these variations influence well-being in diverse populations.

Global Perspectives: Global health disparities do not quite highlight areas in many theories, particularly in low-and middle-income nations, where health is intrinsically tied to social well-being and structure.

Implications for Policy and Practice

Policy Development Challenges: It is difficult to develop effective health and social policies towards fragmented interventions when there is absence of robust theoretical frameworks that positions health as a central theme.

Need for Integrated Strategies: Understanding the role of health in social well-being, is necessary to in developing the intervention strategies, without that the strategies may fail sufficiently address the root cause of health disparities and their broader social implications.

Need To Evaluate the Role of Health in Shaping Societal Harmony

Evaluating the role of health in shaping societal harmony is essential for several reasons. Health is not only a personal concern but also a collective societal

issue that influences various aspects of community life. Here are key points highlighting the importance of this evaluation:

Health as a Foundation of Social Stability

Interconnectedness of Health and Social Cohesion: Health is an important aspect for an individual to be able to contribute strongly to their families and communities at large. In the presence of public health crises can result in social unrest highlighting the need for stable health systems to maintain societal harmony.

Reduction of Health Disparities: One of the crucial areas for promoting social cohesion is addressing health inequities, which in turn fosters a sense of fairness and justice. The communities that prioritize health equity are likely to experience more social harmony.

Impact on Economic Productivity

Economic Implications of Health: A healthy population enhances workforce productivity and economic stability. When priority is given to health, societies can see growth and development, which in turn contributes to overall societal harmony.

Cost of Poor Health: Illness can raise the healthcare expenses of a country; it can also have a negative impact on productivity. Further, this can cause strain to social resources and create tensions. Therefore, it is important to have sound economic policies that would focus on keeping the individuals in good health thus keeping the healthcare expenses manageable and work efficiency stays better.

Social Support and Community Engagement

Role of Health in Building Social Networks: Health initiatives usually draw the attention of community members and often bring them together. It is a wonderful way forward for fostering collaboration and shared goals. Community health programs not only enhance social ties but strengthen the trust among residents.

Volunteerism and Civic Engagement: It is well known that healthy individuals are more likely to engage in civic activities and community services which in turn promote a sense of belonging and collective sense of identity.

Mental Health and Social Well-Being

Connection Between Mental Health and Harmony: Mental health is crucial for social harmony. Unaddressed mental health in society at large may exacerbate conflicts and instability, while prioritizing mental health will enhance belonging and collective sense of identity.

Promotion of Resilience: Investing in health-focused interventions can cultivate resilience and empower people to wade through challenges more effectively.

Cultural and Social Norms

Health as a Cultural Value: Public attitude towards health shapes behaviors and norms. By fostering a culture that values health, it can impact healthier lifestyle choices and social harmony.

Health Education and Awareness: Raising awareness related to health plays a great role in individuals' lives towards understanding the importance of health. This literacy ensures individuals contribute to societal well-being.

Global Health and International Relations

Health as a Global Concern: International cooperation is much needed when it comes to health issues; for instance, during a pandemic, the countries work together to protect their citizens. The support, cooperation, and collaboration between nations can improve relations and promote global harmony.

Shared Responsibility: Navigating health challenges can foster a sense of collective commitment and shared responsibility. It demonstrates the collective nature of societal health and its impact on societal stability.

Policy Implications

Integrated Health Policies: Understanding the influence of health on societal harmony can direct the framing of policies that take health into consideration in social, economic, and environmental planning.

Investment in Public Health: Stressing health as a priority in deriving health policies can foster strong communities, reduce conflicts and enhancing quality of life.

Purpose of the Study

Understanding health's critical role in promoting societal harmony requires evaluating it as the main indicator of social well-being. This goal includes a number of important elements:

Being Aware of the Relationship Between Society and Health

Health as a Fundamental Human Right: Recognize health as a fundamental right re reinforces its significance to attaining social equity and parity, which is crucial for societal harmony

Influences on Health Social Relations: Assessing health's role in interpersonal relationships highlights its influence on community cohesion and overall well-being.

Determining Health Inequalities

Resolving Inequities: Recognizing health as a critical element leads to uncovering societal disparities, which enables the creation of targeted interventions that ensure equitable access to healthcare services for all.

Promoting Health as a Measure of Social Stability: Recognizing health as a vital contributor to social stability involves considering multiple crucial elements.

Encouraging Inclusive Policies: Understanding health disparities among demographic groups can provide significant insights for policies that would aim to endorse social inclusivity and reduce inequality, thus strengthening social stability.

Improving Financial Stability

Connecting Health to Economic Productivity: Health has a great impact on economic productivity; a healthy population is likely to have better productivity and generate better revenue. Economic prosperity, in turn, supports social well-being.

Cost-Effectiveness of Health Investments: The financial gain due to increased productivity of a healthy population resulting from funding the public health program, when documented and analyzed, can display that strong link between social prosperity and health.

Promoting Resilience and Community Involvement

Building Social Networks: Health initiatives often require community involvement; this involvement promotes social bonding and enhances trust in each other, thus resulting in social harmony.

Increasing Resilience Through Health: By emphasizing health, society can become more resilient and be able to endure difficult times and any social and economic setbacks.

Encouraging Emotional and Mental Health

Recognizing the Function of Mental Health in Society: Mental health has significance in social cohesiveness and general health. Evaluating the impact of mental health will foster a conducive environment prioritizing psychological resilience.

Reducing Stigma: By recognizing mental health as vital elements in the overall social health, the prevalent stigma around mental health will be lessened, it will encourage a culture of more inclusive and empathetic society.

Educating Policymakers

Guiding Health Policies: In order to develop Comprehensive health policies that address the social determinants of health such as income, education, housing, and access to food can be developed with input from an evaluation of health as the primary indicator of social well-being.

Integrating Health into Social Design: To make sure that health concerns are at the forefront of all facets of community development, policymakers can utilize health measures to influence social services, education, and urban design.

Promoting Ecological Behaviors

Encouraging Healthier Lifestyles: Assessing health promotes sustainable behaviors that are good for the environment and people's health, which makes society healthier.

Addressing Environmental Health: By recognizing the connection between environmental variables and health, initiatives to improve living conditions can be directed, thereby strengthening social cohesion.

A comprehensive and significant indicator of quality of life and social advancement is provided by focusing on health as the main metric in any situation, be it for individual well-being, community development, or national advancement. Health is an important primary indicator for the following reasons:

A Clear Relationship with Life Quality. A person's health has a direct effect on their quality of life. Enjoying life, achieving goals, and participating in society all depend on one's physical and mental well. For instance, one's health has an impact on one's energy, mobility, and cognitive function—all of which have an impact on one's capacity to work, learn, and interact with others.

The quality of life in terms of health goes beyond the financial metrics, the mental and physical health should be considered. These analyses will provide a thorough understanding of wellbeing, such as how actually people are feeling and living.

Stability and Economic Productivity. Clearly there is an innate connection between productivity and health. Higher productivity, fewer absenteeism, and lower healthcare expenses are all results of a healthy workforce, which benefits both individuals and the economy as a whole.

When people's capacity to contribute to their communities and economies is restricted by avoidable illnesses or a lack of access to care, poor health can result in a cycle of poverty and diminished opportunity.

The Basis for Social and Educational Results. Health has an impact on learning results, especially for kids. Because they are more likely to attend school consistently and participate in their education, healthy kids typically do better academically.

Safety and social cohesiveness are impacted by community health. improved social support, improved civic involvement, and decreased crime rates are all correlated with higher levels of physical and mental wellness.

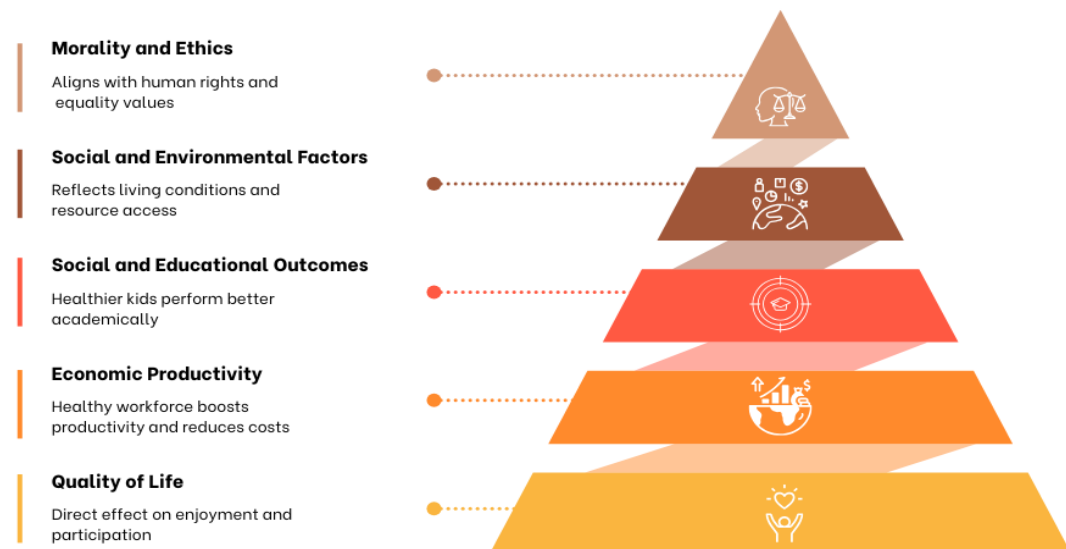
Reflects Social and Environmental Factors. People's health is a strong predictor of their living circumstances, both socially and environmentally. Health is directly impacted by things like housing, food security, pollution, and access to clean water. These important topics are indirectly addressed by concentrating on health, highlighting how closely related they are to both individual and community health.

Health outcomes also identify areas where structural injustices need to be addressed by exposing differences in access to necessary resources. Public health statistics reflect issues including safe living circumstances, nutrition, and access to healthcare.

The Imperative of Morality and Ethics. Putting health first is consistent with basic human right values. International recognition of the right to health as a fundamental human right supports the moral need to guarantee that individuals can have happy, healthy lives.

Placing a strong emphasis on health shows a dedication to upholding equality and human dignity, acknowledging that each person should be given the chance to realize their full potential.

Figure 1 Health as primary indicator of social well-being



Thesis Statement

Health as the central pillar of social well-being fosters a society where individuals thrive, economies are robust, and communities are resilient. It encourages a proactive, ethical approach to governance and resource distribution, fostering environments where equality, peace, and development flourish. In this framework, health becomes the common thread that supports individual happiness, social harmony, and economic stability—paving the way for a truly harmonious society.

Essential to Personal Contribution and Fulfillment

People who are in good health may take advantage of all the opportunities in life, both personally and professionally. Their good health allows them to pursue education, employment and social connections without disruptions and all of these are critical to maintain harmony within society. In addition to that, good health, which includes physical and mental well-being fosters positive behaviors, productivity, and community involvement which are closely linked with increased life satisfaction. Healthy individuals are more likely to make constructive contributions to society, which in turn regulates the cycle of social stability and well-being.

Economic and Social Development Foundation

For economic success of any society, it requires a productive workforce, and maintaining productivity needs excellent health of the workforce. The society can go through economic strain due to decrease in workforce participation, higher healthcare costs and productivity. Beyond the financial impact, understanding the significance of health and prioritizing it will foster social equality through ensuring equal access to healthcare and preventive services to all, by presenting everyone with the opportunity to succeed. Because disparities in access to basic resources are frequently major causes of social unrest, a healthier society promotes and strengthens the foundation for economic and social development.

Encourages Social Unity and Adaptability

A strong health standard builds up stronger social cohesion, as individuals are likely to be better equipped to participate in community activities. This involvement fosters mutual support, empathy, and trust among individuals. In addition to that, a resilient healthcare system prepares society against any unforeseen societal challenges such as pandemics or environmental challenges. By prioritizing health, the community is more adaptable, which in turn reduces the risk of social instability, it ensures continuity and swift recovery.

Connections to Justice, Education, and the Environment

On one hand, important issues, such as social justice, education, and environmental quality, health on the other side have influenced nature of their own, both influence each other. For instance, children with better health are likely to do better in academics, which enhances the possibility of employment opportunities and thus, create a more educated populace. Further, a fair access system of health resources is made possible by equal judicial systems, and cleaner environments lower health risks.

By putting health first, other aspects of wellbeing are also taken care of, creating a cohesive social ecosystem. The notion that all aspects of society are interdependent is strengthened by the fact that health, as a fundamental pillar, becomes a common goal for many sectors.

Encourages Human Rights and Ethical Responsibility

Internationally acknowledged as essential to human dignity, health is a fundamental human right. By prioritizing health over social well-being, communities demonstrate their dedication to upholding each person's inherent value and right to a high standard of living.

In addition to being a social priority, this ethical focus on health encourages policies that alleviate inequity, stop suffering, and safeguard vulnerable groups.

Promotes Preventive Care and Long-Term Vision

Prioritizing health causes the emphasis to change from reactive care to prevention and long-term health programs. By ensuring a healthier society over time, preventive care—such as immunization, mental health services, and nutrition programs—lessens the burden on healthcare systems.

Because people are better able to sustain their health over time, preventive measures foster a proactive, stable healthy environment, which is essential for societal cohesion.

Theoretical Framework

Defining Social Well-being

Social Well-being has been defined in several ways, which reflects its multidimensional nature and its approach to defining societal health. Social well-being is abstractly measured in the degree to which the individual feels a sense of belonging, social inclusion and participation in their community. Following 4 models have reflected light on social wellbeing:

Keyes' Model of Social Well-Being

Keyes' seminal work, *Social Well-being (1998)*, presents a multidimensional nature of social well-being. He outlines five dimensions of social well-being. Each of these dimensions emphasizes both personal experiences and societal functioning, furthermore, these dimensions also offer insights into how health and wellbeing are interlinked. Keyes' work does reciprocate the central theme of health being the fundamental pillar of societal harmony.

Social integration refers to the sense of belonging and connection to the community. Health plays a crucial role in facilitating social integration. It is well evident a healthy population is more likely to be involved in communal activities which in turn stronger social ties. The stronger the social ties among the population greater the social harmony. Keyes emphasizes that people with high integration in society experience an overall better quality of life, Supporting the notion in context of this paper that both social cohesion and individual well-being are reinforced by good health.

Social acceptance is a perception of an individual over society and the level of trust in others. As per Keyes, individuals with higher social acceptance tend to believe that the society is kind, trustworthy and supportive. Health as presented in this paper influences these perceptions. A healthy person is more likely to see their social environment positively, which in turn leads to a harmonious society flourishing trust and cooperation.

Social contribution refers to the belief that an individual is a vital part of society and adds meaningful contributions. The Keyes model suggests that individuals who are physically and mentally healthy are likely to feel equipped to contribute to the social fabric, which strengthens social well-being. This paper supports the notion that health is necessary for being a productive workforce which enables individuals to impart positivity to society.

Social actualization entails having faith in society's capacity to advance and prosper. According to the suggested framework, being well allows people to actively participate in and support societal progress, which in turn promotes social actualization. A population that is in good health tends to have more optimism about

society's future, which can motivate people to work together for social peace, growth, and innovation.

Social coherence implies understanding the social world and its significance. According to Keyes, people who believe that society is predictable and understandable are happier. Health is vital to maintaining social cohesiveness because easily available healthcare systems and public health initiatives provide people's lives stability and predictability. This promotes social peace and reduces uncertainty, which makes society more cohesive and well-organized.

Keyes' *Social Well-being* (1998) offers a robust model that is highly applicable to the theoretical framework of this paper on health and societal harmony. His five dimensions offer an organized method for comprehending how health affects larger social dynamics in addition to its direct effects on people. One could argue, for instance, that expanding access to healthcare and public health facilities will improve social cohesion and contribution, which in turn will promote a more peaceful and cohesive community. This alignment provides both a theoretical framework and practical application for public health and social policies, strengthening the case that health should be viewed as a primary indicator of social well-being and societal harmony.

OECD's Better Life Index

The Organisation for Economic Co-operation and Development (OECD) report *How's Life? Measuring Well-being* (2011) provides a thorough framework that goes beyond standard economic metrics to emphasize many aspects of societal well-being. By integrating social, environmental, and health-related elements, this report significantly contributes to the expansion of our understanding of well-being.

This model identifies well-being into two primary dimensions: Material living conditions and quality of life. Material living conditions include income, jobs and housing. The quality of life includes health, education, environment, social connections, work-life balance, personal security, civic engagement and subjective well-being. This model emphasizes health, social connections and work life balance in addition to income and employment, reinforcing the core argument of this paper.

Allardt's Model

Erik Allardt's (1993) model of well-being circles around three key words *Having, Loving and Being*. Having highlighted material conditions, loving refers to interpersonal relationships and social inclusions and being talks about participation in society and personal development. This model has great relevance to this paper as it offers insights into how health plays a role with the dimensions highlighted in Allardt's model.

Having (Material Conditions and Basic Needs): This dimension focuses on access to essential resources and other materials conditions to meet the basic necessities. This includes resources fundamental to physical survival such as housing, food, healthcare, and income. It is widely understood that physical health is influenced by access to basic necessities such as food, shelter and health care, when these conditions are met the individual is more likely to live longer with better

physical health. Further, individuals are likely to have more mental satisfaction, less stress, anxiety and depression if the material conditions are met.

Loving (Social Relationships and Inclusion): This dimension highlights the importance of social connections. It is well understood that our social connections often become our great source of emotional support during the various facets of life. Emotional support is very crucial for mental health. Close connections with friends and family and community at large create a sense of belonging. The strong social bonds are often associated with lower levels of anxiety, depression and stress. These social bonds act as a buffer against stress and help individuals cope with life challenges. Thus, a strong social relationship creates an environment for better physical health, whereas lack of social relationship may lead the individual to Unhealthy habits such as smoking, and alcoholism. In absence of strong social bonds can also lead to lack of physical activity, obesity and which leads to chronic diseases such as cardiovascular disease, diabetes, and hypertension also known as lifestyle diseases. Feeling of being loved promotes a positive atmosphere and provides a platform for an overall well-being.

Being (Personal Development and Societal Participation): This dimension emphasizes the importance of personal growth and societal engagement as essential components of health and well-being. This component emphasizes the significance of achieving self-actualization, and contribution to society. A sense of purpose, identity, and connection are fostered by personal development and social activity, which positively impacts mental, emotional, and physical health. In order to achieve a holistic feeling of well-being it is necessary to have a balance between personal development and active participation in society.

In summary, Allard's model reinforces the central argument of this paper, by highlighting that attaining good health and well-being necessitates an integrated approach that takes care of fundamental requirements, fosters social relationships, and encourages individual and societal development.

Michael Marmot's Model

Michael Marmot's Social Determinants of Health Inequalities (2005) provides critical insights into the role of health as a key indicator of social well-being and societal harmony. His work offers a critical perspective on factors that contribute to the health disparities and highlights that health outcomes are not merely determined by genetic or biological factors but significantly shaped by the economic conditions. Marmot's work is relevant to this paper as it underscores the intrinsic link between health to broader social inequalities. Poor health compounds the social divisions, as individuals with poor health are less likely to attain the benefits available in the society. Conversely, improving the health outcomes can lead to a more cohesive and equitable society.

In his work Marmot introduces the concept of the "Social gradient in health", which describes how individuals with lower socioeconomic stature face poorer health outcomes in comparison to high status groups. This gradient illustrates how health inequities gradually affect all societal levels and are not limited to the richest and poorest. His research also highlights the role of psychological factors such as stress and social support contributing to health inequality.

Marmot advocates for the “proportionate universalism” approach, which suggests that the intervention should be applied universally, but the scale and intensity can be in proportion to the level of disadvantage. The Marmot model complements this paper as it emphasizes the importance of health and how, over the period of time if ignored, the health inequality gaps widen affecting the individual society as a whole.

Review of above Health and Well-being Models

Keyes’ Model has highlighted that healthy individuals are more likely to actively participate in community activities, which improve harmony and social bonds. Trust and cooperation positively influence their health, reinforcing a cycle of mutual benefit. The optimism created by this outlook encourages collaborations. Societal health is vital to social cohesiveness; accessible healthcare reduces uncertainty and promotes cohesion. While Keyes’ model highlighted various dimensions, the model seemingly overemphasized social dynamics, while overlooking health problems such as access to healthcare and economic barriers.

OECD’s Better Life Index Model emphasizes considering all other aspects, being healthy is not just about physical health; it also includes having social connections and work life balance.

Table 1

Comparison of Health and Well-being Models: Key Features, Strengths, and Gaps

Model	Key Features	Strengths	Weaknesses / Overlooked Areas
Keyes' Model	❖ Links individual health, community participation, and social bonds ❖ Highlights trust, cooperation, and societal harmony	❖ Shows how community participation and strong social bonds improve health and well-being	❖ Overemphasizes social dynamics ❖ Overlooks issues like health care access and economic barriers
OECD Better Life Index Model	❖ Focuses on overall well-being ❖ Includes physical health, social connections, and work-life balance	❖ Recognizes health as multi-dimensional ❖ Includes work-life balance, social connections, and overall well-being	❖ Fails to address material conditions (e.g., economic stress) and mental health ❖ Ignores the influence of economic disparities
Allardt's Model	❖ Having: Material resources (e.g., food, shelter) ❖ Loving: Strong social bonds ❖ Being: Purpose and identity	❖ Comprehensive approach to health ➢ Material: Economic resources ➢ Social: Relationships and connections ➢ Psychological: Mental well-being	❖ Does not focus on healthcare quality or education ❖ Lacks consideration of cultural influences ❖ Overlooks barriers to societal participation (e.g., discrimination, economic instability)
Michael Marmot's Model	❖ Focuses on social inequality and health disparities ❖ Highlights the impact of socioeconomic status on health ❖ Advocates for universal health interventions to reduce disparities	❖ Strong focus on addressing health inequalities ❖ Explores the relationship between social support, stress, and health	❖ Overlooks specifics of socioeconomic factors and their direct impact on health inequities ❖ May not sufficiently emphasize social support systems

While OECD's Model highlights well-being arises from a balance of health, social connections and work-life. However, this model may overlook the interrelation between material conditions with health outcomes, such as Mental health aspect of economic stress.

Allardt's Model highlights three aspects "Having (food, shelter, healthcare), Loving (Strong social bonds) and Being (purpose and identity)" affecting health outcomes. While it does not clearly talk about quality healthcare and education; does not consider the diversity of social relations or influence of cultural factors on social bonding and does not consider the barriers which might influence the participation in society, barriers such as discrimination and economic stability.

Michael Marmot's Model addresses major issues pertaining to social inequality and health disparities. It draws attention to the connection between a lower socioeconomic level and poorer health, which fosters social inequality. Furthermore, it links social dynamics to health by highlighting how stress and social support shape health outcomes. This model advocates universal health interventions that highlight varying degrees of disadvantage, and demonstrates how addressing and enhancing health promotes social equity.

However, there are few areas where this model has not been covered, like how a specific socioeconomic factor contributes towards health inequalities and also misses out on highlighting significance of social support systems. Thus, addressing these gaps can strengthen efforts to improve health outcomes and foster equity in society.

Literature Review

Historical Perspectives

Evolution of the Role of Health in Social Theory. Throughout history, the link between health and society has changed dramatically, shifting from early individual-focused perspectives to contemporary ideas of health as a social duty. Philosophers like Hippocrates (c. 460–370 BCE) suggested that health depended on the balance of bodily humors and was inextricably tied to external conditions, illustrating how health was frequently regarded through the lens of balance in classical antiquity (Hippocrates, 1923). This idea of individualism continued into the Roman age, when philosophers like Galen recognized the impact of broader environmental forces while emphasizing personal hygiene and health (Nutton, 2004).

Thinkers such as Auguste Comte and Emile Durkheim began focusing their attention to the collective aspects of social order and health in the 19th century. Comte's idea of sociology and Durkheim's notion of "social facts" played a significant role in laying the groundwork in understanding how health linked to larger societal processes (Comte, 1851; Durkheim, 1897). Urbanization and industrialization during the Industrial Revolution exposed the boundaries of personal responsibility, particularly in view of the increasing awareness of public health emergencies like cholera and tuberculosis. As a result, social medicine gained popularity, with academics like Rudolf Virchow promoting the idea that addressing social issues like poverty is necessary to enhance public health (Virchow, 1848).

By the 20th century, public health was seen as a societal priority. The establishment of organizations such as the World Health Organization (WHO) in 1948 and National Health Services in the United Kingdom (NHS) explains that Health should be a public good rather than just an individual endeavor (World Health Organization, 1948). These developments highlight health as a collective duty linked to social equity and national well-being.

Shift from Personal Health Concerns to Social Health Priorities. Towards the middle of the 20th century, a significant shift in health discourse emerged due to the rise in emphasis on social determinants of health (SDH). The shift marked a transition from viewing health as an individual issue to a societal one. In his research 20th century fall in mortality rates, Thomas McKeown highlighted the superiority of public health programs, sanitation and nutrition over medical intervention (McKeown, 1979). The formation of universal health insurance programs and the WHO's 1948 definition of health as "a state of complete physical, mental, and social well-being", indicated the perspective towards the idea of health as a social asset and linked to social policy and justice (World Health Organization, 1948).

Recognizing that inequality plays an important role in determining health outcomes can lead to a shift in how health is viewed, and an inclusive approach being preferred, with consideration of other social factors. For example, the creation of the National Health Service (NHS) in the UK in 1948 and the Social Security Act in the US in 1935, placed strong emphasis on collective responsibility for health (Our History, 2019; National Archives, 2021). These policies demonstrated a growing social awareness that health is intricately linked with larger societal factors rather than just individual behaviors.

Contemporary Theories

Key Contemporary Theories that Include Health in Social Well-Being Models. Given its critical role in promoting harmonious societies, health has been progressively incorporated into models of social well-being in contemporary social theories.

Social Determinants of Health (SDH) Framework. The World Health Organization (WHO) states that a person's health is influenced by social conditions such as housing, healthcare access, education, and income rather than solely individual behavior or medical care. This perspective resonates with the Social Determinants of Health Framework. This framework emphasizes that addressing societal disparities is an essential step for fostering social well-being, as these disparities contribute to health inequalities.

The Capability Approach by Amartya Sen and Martha Nussbaum. Health is understood as the core capability that enables individuals to live a meaningful life. Sen (1999) and Nussbaum (2011) highlight the capability approach which endorses the idea of emphasizing people's well-being in terms of what individuals accomplish based on the living conditions such as material and social circumstances. This approach suggests that improving well-being requires broader social and economic opportunities, which are intricately linked to health as a goal.

Social Capital Theory. This theory highlights how community engagement, trust, and social networks enhance and support social well-being. Scholars like Robert Putnam observed that societies with strong social bonds are linked to improved health outcomes. These social networks provide emotional support in times of need and structures built through these networks improves accessibility for the member to better health related services (Putnam, 2000). Social capital is seen in a way to merge health into the social structure and create positive cycles for wellbeing.

Ecological Models of Health. Ecological Models of Health emphasize the multi-layered influences on health due to societal policies, environmental factors, and human behaviors (Bronfenbrenner, 1979). These models incorporate the idea that health is influenced at many levels, ranging from larger socioeconomic and environmental policies to support networks within the family and community. By focusing on the interconnections between different levels, this model highlights health as a key aspect of the entire social ecosystem, reinforcing the notion that a societal harmony is reflected in the health of its members.

Health; Primary Indicator of Societal Harmony. Though the degree to which health serves as a main indicator of communal harmony is more debatable, contemporary theories generally agree that health is a key element of social well-being. As seen in the SDH framework and ecological models, health is seen as a reflection of broader societal conditions, including equity, justice, and access to resources, implying that a society's overall harmony and social cohesion are closely tied to its overall state of health (Marmot et al., 2008; Bronfenbrenner, 1979).

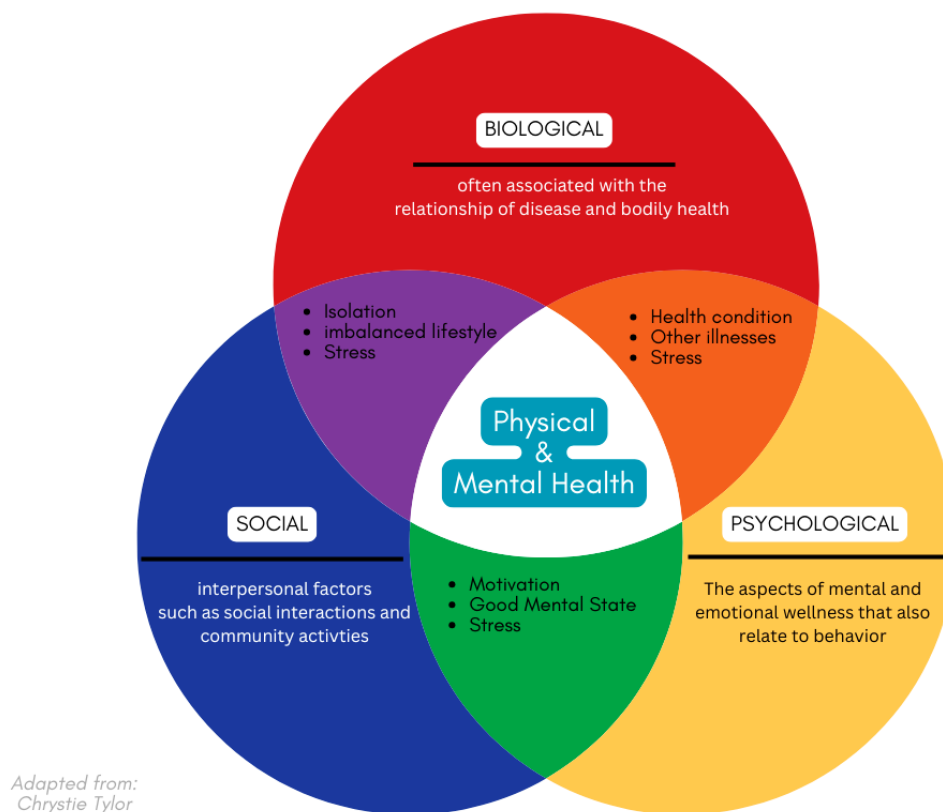
While these theories acknowledge the importance of health, they often emphasize a comprehensive understanding of social well-being that takes into account factors like freedom, safety, work, and education. According to the Capability Approach, social harmony depends on a range of capabilities, including health (Sen, 1999). Thus, although health is a significant factor, social harmony is not measured solely by it. While these viewpoints contest the idea that health is the sole measure of social well-being, they still emphasize its importance.

Engel's biosocial concept later gained significant traction. The biopsychosocial model encompasses three primary areas that the majority of medical practitioners today considered influential in mental health (Engel, 1977):

- a. biological (such as brain chemistry, genetics, and brain damage)
- b. Social (such as early experiences, family ties, and life traumas and stresses)
- c. psychological (for instance, how we perceive certain occurrences as indicating a negative aspect of ourselves)

We can better comprehend the potential development of mental health issues by using the biopsychosocial model. Its applicability should not be limited to those who are mentally ill, these three areas can be studied and applied to improve mental health across the society.

Figure 2 Biopsychosocial (BPS) Model



A combination of biological, psychological, and social factors influences your mental health as well as mine, your friends', your family's, and your coworkers'. It's critical to comprehend that, "healthy" and "unhealthy" persons are not distinct from one another. A person with a mental illness does not have a completely different mind from you. There is simply a separate set of circumstances that have combined to make the individual mentally ill. We can all be mentally well or mentally ill, just like on the mental health spectrum. Individuals with mental health challenges are often perceived as fundamentally different. This model is a great method to combat the stigma associated with mental health problems.

Conclusion

In social theory, health has evolved from being a personal concern to being a major social priority. Health has a crucial role in determining social well-being, as per modern theories, especially those that emphasize social determinants of health, the capacity approach, and social capital. These models, however, frequently ignore health as the main determinant of social harmony. By acknowledging health as a fundamental component of social well-being and a key sign of a society's general harmony and justice, the suggested framework seeks to close this gap.

Discussion

Implications of the Framework

In order to establish health as the foundation of social well-being, this framework has various theoretical ramifications and can be examined from a number of angles, such as health equity, social determinants of health, and the incorporation of health in comprehensive social policies. Following are the key points about the possible implications:

Health Equity: Addressing health inequities among various communities is crucial, as highlighted by the idea that health is fundamental to social well-being. Health equity-focused theoretical frameworks support laws that guarantee everyone has equitable access to medical resources, advancing social justice and lowering disparities in health outcomes

Social Determinants of Health: This viewpoint emphasizes how a range of social factors, including socioeconomic position, education, and community resources, have an impact on health. Enhancing health necessitates an all-encompassing strategy that takes into account these factors, acknowledging that the social environment cannot be separated from health.

Holistic Methods: Holistic approaches emphasize the inclusion of health in the discourse of social well-being. It views mental, social, and physical health as interrelated and is reinforced by integrating health in social well-being. To enhance overall well-being, theoretical frameworks such as biopsychosocial models emphasize the necessity of interventions that would address all the facets of health.

Public Health Policy: Public health policies are more effective when they give priority on health promotion and preventive care. The theoretical ramifications include the need for policies that improve community health by endorsing healthy environments and behaviors beyond just treating illness.

Community Engagement: Community health thrives when health is recognized as the foundation of social well-being. Community-based methods are supported by theoretical models which position health at the center; the model would stress on the role of health in social being. Developing successful interventions that are sensitive to local needs and culturally appropriate requires involving communities in health decision-making processes.

Sustainability: Sustainable health strategies are essential in modeling social well-being. Sustainable health practices and policies are indicative in the health discourse about social well-being. The theoretical ramifications indicate the necessity of embedding health issues into all social policies. It is particularly important for long-term health outcomes and ensuring that health systems remain resilient and well equipped to handle any unforeseen challenges.

Future Directions

Following topics may be additionally explored in order to enhance the theoretical comprehension of health as the foundation of social well-being:

- Interdisciplinary research to understand how disciplines such as public health, psychology, economics, sociology, can combine their perspectives to highlight how health affects social well-being.
- More investigation is required to examine particular social factors that have a major influence on health outcomes, especially in underserved regions. Analyzing variables such as housing, education, and work in relation to health would provide more information related to social wellbeing.
- Research may be conducted to develop a framework that deals with social justice and health equality. It can focus on highlighting practical methods for lowering health inequalities and improve fair access to healthcare.
- Examining how mental and physical health interact and influence overall well-being can help guide practice and policy.
- Research can be conducted to involve communities in health-related decisions making knowledge related to regional health priorities and needs.
- A longitudinal study on the relationship between health and social well-being over time can provide insights into causality.
- A Study can be conducted to explore how cultural practices and beliefs influence people's perceptions and behavior in relation to health.
- The establishment of policy frameworks that prioritize health as a fundamental component of social fairness and well-being could be the subject of future research.
- Research could examine how digital health tools facilitate community participation, health knowledge, and access to care.
- Research can be conducted to explore the link between sustainability, environment health, and social well-being, emphasizing the importance of a healthy environment in promoting general health.

Conclusion

Social well-being is a multidimensional concept which consists of overall health and quality of life of a community. It shows how much people and groups in society feel supported, respected, and connected. Prioritizing social well-being reduces conflict and increases mutual satisfaction by fostering societal peace, cooperation, respect, and a sense of belonging.

Human society is built on networks of individuals who are dependent on each other, and the dependency is the key factor that drives individuals to interact with one another and thus take to the formation of a community. An individual's health and well-being affects others who are in the community. Therefore, these dependencies make social well-being a critical aspect to discuss.

Though there have been various models and discourse around social well being, there remains a significant gap when it comes to positioning health as a core

indicator of social well-being. These existing frameworks primarily focus on economic, education and political factors overlooking health as a key discourse of social well-being.

Health is not just a personal concern; it also has collective implications for society. It has a domino effect in the society impacting social stability, economic productivity, and community participation. While addressing health inequities promotes social cohesiveness, healthy individuals strengthen families and communities. While health efforts encourage social networks, volunteerism, and civic involvement, a healthy population eases the burden of disease and supports economic growth.

Social well-being depends on addressing health equity since it guarantees that everyone has equal access to medical resources, advancing social fairness and minimizing health inequalities. In order to emphasize the connection between social variables and health, health treatments must take into account social determinants of health, such as socioeconomic status and education. The biopsychosocial model and other holistic methods emphasize the necessity of all-encompassing approaches that take into account mental, social, and physical health in tandem. Health promotion and prevention, as well as the encouragement of healthy settings and behaviors, should be the main goals of public health programs. In order to create successful, culturally appropriate health interventions, community engagement is essential, and for long-lasting, robust health systems, sustainability necessitates integrating health into all social programs.

References

- Allardt, E. (1993). Having, loving, being: An alternative to the Swedish model of welfare research. *The Quality of Life*. Springer, Dordrecht. https://doi.org/10.1007/978-94-011-2074-1_10
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
- Comte, A. (1851). *The Positive Philosophy of Auguste Comte*. Translated by Harriet Martineau.
- Durkheim, É. (1897). *Le Suicide*. Free Press.
- Engel, G. L. (1977). *The need for a new medical model: A challenge for biomedicine*. *Science, 196*(4286), 129-136.
- Hippocrates. (1923). *Hippocratic Writings*. Translated by W.H.S. Jones.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The worldwide governance indicators: Methodology and analytical issues. *World Bank Policy Research Working Paper* No. 5430. <https://doi.org/10.1596/1813-9450-5430>
- Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly*, 61(2), 121-140. <https://doi.org/10.2307/2787065>
- Kickbusch, I. (2012). *Health in all policies: The evolution of the concept of horizontal health governance*. *Annual Review of Public Health*, 33(1), 7-25. <https://doi.org/10.1146/annurev-publhealth-031912-114502>
- Marmot, M. (2005). Social determinants of health inequalities. *The Lancet*, 365(9464), 1099-1104. [https://doi.org/10.1016/S0140-6736\(05\)74234-3](https://doi.org/10.1016/S0140-6736(05)74234-3)
- Marmot et al. (2008). *Social determinants of health and the health of the public*. The Lancet, 372(9650), 1651-1660.
- McKeown, T. (1979). *The Role of Medicine: Dream, Mirage, or Nemesis?*. Blackwell.
- National Archives. (2021, September 21). *Social Security Act (1935)*. National Archives. <https://www.archives.gov/milestone-documents/social-security-act>

- Nussbaum, M. C. (2000). *Women and human development: The capabilities approach*. Cambridge University Press.
- Nutton, V. (2004). *Ancient Medicine*. Routledge.
- OECD, (2011). *How's life?: Measuring well-being*. OECD Publishing.
<https://doi.org/10.1787/9789264121164-en>
- Our History. (2019, May 24). *The Birth of the National Health Service: A revolutionary moment in British history*. <https://www.ourhistory.org.uk/>. <https://www.ourhistory.org.uk/the-birth-of-the-national-health-service-a-revolutionary-moment-in-british-history/>
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon & Schuster.
- Sen, A. (1999). *Development as Freedom*. Alfred A. Knopf.
- Stiglitz, J. E., Sen, A., & Fitoussi, J. P. (2009). *Report by the commission on the measurement of economic performance and social progress*. Commission on the Measurement of Economic Performance and Social Progress. <https://www.oecd.org/statistics/commission-on-the-measurement-of-economic-performance-and-social-progress-9789264050822-en.htm>
- UNESCO. (2014). *Education for all global monitoring report 2013/14: Teaching and learning—Achieving quality for all*. UNESCO Publishing.
<https://unesdoc.unesco.org/ark:/48223/pf0000225660>
- Virchow, R. (1848). *Report on the Typhus Epidemic in Upper Silesia*.
- World Health Organization. (1948). *Constitution of the World Health Organization*. Geneva.
- World Health Organization. (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health*. WHO Commission on Social Determinants of Health.
https://www.who.int/social_determinants/thecommission/finalreport/en/

FABRICATION OF POLYMER NANOCOMPOSITES FOR THE REMOVAL OF VARIOUS DYES USING ADSORPTION TECHNIQUE: A MINI REVIEW

M. Tamilchezhiyan, Department of Physics, Chikkaiah Govt Arts and Science College

John Williams, PhD, Department of Chemistry, Spicer Adventist University¹

Abstract

The increasing contamination of water bodies by synthetic dyes from textiles, paper, and other industrial effluents poses a serious threat to environmental and human health. Among various remediation techniques, adsorption has emerged as an efficient, cost-effective, and eco-friendly method for dye removal. In recent years, polymer nanocomposites have gained significant attention due to their enhanced surface area, tunable surface chemistry, mechanical strength, and high adsorption capacity. This review provides a comprehensive overview of the recent advances in the fabrication of polymer-based nanocomposites for the adsorption of various dyes from aqueous solutions. The synthesis methods, structural characteristics, and functional modifications of polymer nanocomposites are discussed in detail, along with their dye removal performance under different conditions. In addition, it explores the mechanisms of dye adsorption, factors affecting the efficiency, and challenges in scaling up the technology for real-world applications.

Keywords: Adsorption, Polymer nanocomposite, Pollution, Dyes, Synthesis

Introduction

Water pollution caused by synthetic dyes has become a critical global environmental issue, particularly due to the rapid expansion of textiles, paper, leather, plastic, and food industries. Dyes are complex organic molecules, often toxic, carcinogenic, and resistant to biodegradation. Their presence in water bodies not only affects aquatic life but also poses serious health risks to humans (Lellis et al., 2019). Conventional wastewater treatment methods such as coagulation, flocculation, chemical oxidation, and biological degradation are often ineffective, costly, or produce secondary pollution.

Among the available techniques, adsorption has emerged as one of the most promising methods for dye removal due to its simplicity, high efficiency, cost-effectiveness, and ability to handle a wide range of dye types (Bello et al., 2013; Bello

¹ Corresponding Email: johnwilliams@sau.edu.in

& Ahmad, 2012; Da'na, 2017; Gupta et al., 2006; Peng et al., 2017; Sherlala et al., 2018). Recent research has focused on developing advanced adsorbent materials to enhance dye removal performance, and polymer nanocomposites have shown tremendous potential in this regard. These materials combine the versatility and processability of polymers with the unique properties of nanomaterials, resulting in adsorbents with high surface area, improved mechanical strength, and customizable surface functionalities (Dehingia et al., 2024; Fouda & Hassan, 2024, 2024; Fu et al., 2023; Kolya & Kang, 2023; Kolya & Tripathy, 2013; Maziya et al., 2024; Tripathy et al., 2017).

This review aims to provide a comprehensive analysis of the fabrication and application of polymer-based nanocomposites for the removal of various dyes from aqueous environments using the adsorption technique. It covers different synthesis strategies, types of nanofillers, adsorption mechanisms, and key performance factors. Furthermore, it highlights current challenges and suggests future research directions to advance the field of polymer nanocomposite adsorbents for sustainable water treatment solutions.

Synthesis of Conducting Polymer Nanocomposites by Various Synthetic Routes

It is impossible to synthesize polymer nanocomposite by a single method because of the physical and chemical differences between each system and the different types of equipment's available to the researchers. To get good polymer matrix nano composite, the nano particles should be dispersed thoroughly. There are two areas in which the traditional composite materials have to improve the one is performance and the other is potential applications. But the problem associated with these is the development of processing and manufacturing of nanocomposites for commercial purposes is the greatest challenge of nanocomposites in the 21st century. The synthesis of various polymer nanocomposites was systematically studied and given in the following sub-section.

In-situ Polymerization

In this process, the inorganic particles are synthesized from the polymer phase using a metal or metaloxide precursor, which is consequently converted into desirable nanoparticles. By the in-situ approach the particle size and morphology can be controlled. Poly metal oxide nanocomposite can be synthesized by in-situ polymerization process (F. Yang et al., 1998). In this processing technique the metaloxides are incorporated in the polymer matrix. So many researchers have followed the in-situ chemical oxidative process to prepare poly metal oxide nanocomposite.

Sol-Gel Technique

One of the best methods to synthesize the polymer nanocomposite chemically is the sol gel process (Oliveira & Machado, 2013). The sol gel process consists of two major steps. The first step is the hydrolysis of the metal alkoxides and the second step is the poly condensation of the hydrolyzed intermediates. This process is utilized to prepare the inorganic metal oxides from the organic metal oxides, halides, esters etc. The sol gel process can be a best method to synthesize inorganic-organic hybrids using metal alkoxide.

Micro Emulsion Technique

Transparent solutions called micro emulsions are made up of tiny droplets of an immiscible phase (polar or non-polar) scattered in a continuous phase. In order to stabilize the droplets, surfactants are added to lower the interfacial tension between the continuously distributed and immiscible phases. Depending on how concentrated each component is micro emulsions can form in water-in-oil or oil-in-water systems. The size of the droplets can be controlled roughly to the range of 1-100nm by altering the concentration of the dispersed phase and the surfactant.

Self-assembling processes create the structures, which primarily coexist in oil or water phases and range from cylindrical and spherical (inverted) micelles to lamellar phases and bicontinuous microemulsions. The specific form and size-controlled nanoparticles can be produced using the microemulsion and inverse micelles processes. No matter if surfactants are present; the aggregation of produced nanoparticles typically requires a number of washing cycles and maintaining the stabilization under diverse processing conditions.

Co-Precipitation Process

The co-precipitation process is the most basic and practical chemical pathway for producing polymer nanocomposites. The precipitation procedure has the advantage of producing a large number of nanocomposites. The downside of the technique is that it has limited control over particle size distribution since kinetic variables can impact crystal formation. The precipitation process has two stages: the first is a brief burst of nucleation that occurs when the concentration of the species reaches critical super saturation, and the second is a steady development of the nuclei caused by solute diffusion to the crystal's surface.

Hydro Thermal Synthesis

These reactions normally take place in closed containers. The reactants based on its solubility taken as either in suspended form or dissolved in known quantity of water and transferred into acid digester reactors or in autoclaves. The reactions should be carried out under the hydrothermal conditions; the reactants which cannot dissolve will go into solution and will be reprecipitated.

Sonochemical Synthesis

Sonochemical synthesis has been widely employed to create novel materials with surprising features. In this synthesis, ultrasound was discovered to be useful in the formation of novel phases that were useful in the generation of extremely monodispersive nanoparticles. The hot spot created by the instantly collapsed cavities made by the ultrasound enables for the conversion of salts into nanoparticles by applying a very high temperature.

Polymer Nanocomposites for the Removal of Various Dyes and Heavy Metal Ion by Adsorption Technique

To date, organic-inorganic hybrid (Polymer metal oxide) nanocomposite demonstrated high adsorption capacity for the removal of textile dyes using adsorption technique. Polyaniline/zirconium oxide was synthesized by Agarwal et al (Agarwal et al., 2016) for the removal of methylene blue dye through the chemical

method, using the ammonium persulfate as an oxidant. The developed adsorbent was characterized using various analytical techniques such as scanning electron microscopy, X-ray diffraction and Fourier transform infrared spectroscopy. The developed nanocomposites i.e. polyaniline modified with ZrO_2 and polyaniline were used as effective adsorbents for the rapid removal of methylene blue from the solvent phase. The effects of different system variables such as initial dye concentration, temperature and contact time were well studied and investigated. It was found that the dye removal efficiency increased with increasing contact time and operation temperature. The maximum dye removal capacity for the PANI/ ZrO_2 nanocomposite was 77.55 mg/g. From the optimized parameter results obtained it was found that as contact time increases, the dye removal efficiency also increases. Additionally, as the temperature increased the amount of adsorption also increased. The results indicated that the polyaniline modified with ZrO_2 and polyaniline nanocomposite have considerable potential for the removal of methylene blue from aqueous solution. The adsorption capacities (q_{max}) of polyaniline modified with ZrO_2 (PANI/ ZrO_2) and polyaniline (PANI) for methylene blue in terms of monolayer adsorption were 77.51 and 192.30 mg/g, respectively.

More recently, Abu Elella et al (Abu Elella et al., 2024) synthesized gelation cross linked poly (acrylamide-co-itaconic acid montmorillonite (MMT) nanocomposite was the best performing adsorbent achieved the highest adsorption capacity of 950.5 mg/g for MG dye. In addition, the recycling studies exhibited excellent reproducibility for four consecutive cycles. Hence it is concluded that the synthesized nanocomposite is an excellent adsorbent for the removal of MG dye.

Recently, Chen Y et al (Chen et al., 2019) synthesized PPy/ Attapulgit composite supported nanoscale zero valent Iron for the removal of naphthol greenB from aqueous solution. The fabricated nanocomposite eliminated 99.59% of NGB by using (PPy/APT-nZVI) after 25 min. The dynamic studies disclosed that the removal was highly consistent with pseudo second order for adsorption and pseudo first order for degradation process which evidenced the removal was influenced by chemical surface limiting step. Similarly, the Pires B.C et al (Pires et al., 2019) prepared PPy/MWCNT. The synthesized nanocomposite was used as an adsorbent against the Potassium diclofenac (PD) a non-steroidal anti-inflammatory drug. The adsorption efficiency of PPy/MWCNT was 94.98%. The isotherm studies exhibited that the synthesized nanocomposite was well fitted with the Langmuir freundlich and fritz-schlunder models. The reason for the good adsorption property is due to the addition of MWCNT in PPy which caused a remarkable improvement in achieving the maximum adsorption using PPy/MWCNT.

Likewise, Abbasian et al (Abbasian et al., 2017) fabricated cellulose/PANI derivatives through in situ chemical oxidation for the removal of acid red 4 (AR4) and direct red 23 (DR 23) dyes from simulated industrial effluents. The synthesized Cell/PANI nanocomposites exhibited the highest adsorption capacity of 117 mg/g for AR4 and 56 mg/g for DR 23. Moreover, the nanocomposites exhibited good reusability even after five cycles. These nanocomposites are used for the low cost, high effectiveness and re-usability and considered as a promising material for the removal of industrial anionic dye. In addition, Gupta V.K et al (Gupta et al., 2006) synthesized Polyaniline Zirconium (IV) silicophosphate nanocomposite for the decomposition of methylene blue from the waste water. The fabricated nanocomposite demonstrated the adsorption capacity of 12 mg/g from the Langmuir

isotherm model fitting. Furthermore, it is reported that the adsorption follows second order kinetic model.

Over the past years, It has been widely reported that the PNC was a promising material for the removal of toxic metals such as chromium. Yang Y et al (Y. Yang et al., 2018) synthesized polypyrrole decorated corncob biochar. The fabricated PPy/MBC composite exhibited excellent Cr (VI) removal ability within a wide pH range of 2 - 10. The adsorption followed pseudo second order kinetic and langmuir isotherm models. The nanocomposite achieved highest adsorption capacity of 19.23 mg/g at 20°C. The reason for the high adsorption ability is due to the adsorption of Cr (VI) anion on the surface of the nanocomposite. Secondly the adsorbed Cr (VI) were reduced to Cr (III) cation by amine (-NH) and hydroxyl (-OH) functionalized groups. Thirdly most of the Cr (III) anion produced were immobilized by precipitation and chelation only a small part of them were released into the liquid phase due to the electrostatic repulsion process. Similarly, Setshedi K. Z et al (Setshedi et al., 2013) fabricated exfoliated Polypyrrole organically modified MMT clay nanocomposite for the removal of hexavalent chromium. It was observed that when the temperature was raised from 19 to 45 °C the adsorption capacity of the fabricated nanocomposite was increased from 112 to 209 mg/g. In addition, the kinetic data was well fitted with the PSO kinetic model and the equilibrium data was best fitted by the Langmuir model.

Likewise, the high removal adsorption capacity of chromium (VI) by Polypyrrole-wrapped MWCNTs nanocomposite was reported by Bhaumik M et al (Bhaumik et al., 2016). The study evidenced a high adsorption capacity of 294 mg/g at 25°C. The experimental data was well fitted by Langmuir model. The adsorption of Cr (VI) on the material surface was highly depended on pH and the adsorption kinetics followed by pseudo second order model. The calculated values of the thermodynamic parameters such as ΔG^0 (-0.237 kJ/mol), ΔH^0 (13.237 kJ/mol) and ΔS^0 (0.0452 kJ/mol/K) disclosed that the adsorption is spontaneous, endothermic and evidenced with an increase in randomness at the solid-liquid interface. The adsorption capacity of PPy/OMWCNTs was affected lightly by the presence of co-existing ions.

Besides, Li J et al (Li et al., 2013) synthesized Polypyrrole/TiO₂ composite for the removal of methylene blue dye. The synthesized nanocomposite reported good adsorption and desorption characteristics. The adsorption equilibrium results exhibited that the adsorption of MB was completed in 30 min. The adsorption of PPy/TiO₂ was 3.6 - 5.5 times higher than that of PPy/P25 and pure PPy respectively. Furthermore, the recycling studies evidenced that the synthesized PPy/TiO₂ can be reused for atleast seven times without the loss of its original adsorption capacity. The reason for the high adsorption capacity was due to electrostatic interaction, hydrogen bonding, hydrophobic interaction. Hence it is concluded that the synthesized PPy/TiO₂ composite can be considered as a stable adsorbent for dye removal.

Notably, Zhou J et al (Zhou et al., 2017) fabricated two inexpensive and renewable polypyrrole based nanocomposite was synthesized such as Polypyrrole-chitosan-lignosulphate (PPy-CS-LS), Polypyrrole-chitosan (PPy-CS) and Polypyrrole/lignosulphate (PPy-LS) were fabricated via in-situ polymerization. The removal capacity of PPy-CS-LS and PPy-CS against CR dye were 99.3% and 95.4% respectively. The result evidenced that the PPy-Cs-LS composite showed high adsorption capacity due to synergistic effects of amino/hydroxyl containing functional

groups from CS, sulfonic groups from LS and nitrogen containing functional groups from PPy chain.

Also, Boukoussa B et al (Boukoussa et al., 2019) fabricated Polypyrrole mesoporous silica SBA-15 using in-situ polymerization. The prepared nanocomposite was tested for both anionic and cationic dyes. The adsorption efficiency of the PPy/SBA-15 against methyl orange and methylene blue dyes were 41.66 and 58.82 mg/g respectively. Furthermore, the experimental data was substantiated by Langmuir and Freundlich isotherms and the kinetic data was fitted by pseudo first and second order models.

In contrast, various studies have found that the ternary nanocomposite played a pivotal role in the removal of dyes. The Zhao Y et al (Zhao et al., 2015) fabricated hierarchical MWCNTs/Fe₃O₄/PANI magnetic composite for the removal of methyl orange was studied and reported that the synthesized nanocomposite was highly beneficial for the removal of textile dyes from the waste water. The kinetic studies showed that the fabricated nanocomposite fitted well with the pseudo second order model. The hierarchical MWCNTs/Fe₃O₄/PANI exhibited excellent adsorption capacity toward ionic dyes (446.25 mgg⁻¹) for MO and 417.38 mgg⁻¹ for Congo red (CR)). The nitrogen-containing functional groups such as PANI incorporated MWCNTs/Fe₃O₄/PANI involved to many effective adsorption sites which increased the adsorption capacity toward MO and CR. The experimental results exhibited that the MWCNTs/Fe₃O₄/PANI composite was an excellent magnetic material for the preconcentration and separation of ionic dye pollutants from aqueous solutions in environmental pollution cleanup,

Similarly, the PEG-ZnO/rGO ternary composite was synthesized by Buledi et al (Buledi et al., 2024) which is used to remove CR dye from textile waste water. The synthesized nanocomposite was optimized by various parameters and used as an adsorbent for the removal of CR dye. The removal efficiency of the synthesized polymer nanocomposite was 94% with an adsorption capacity of 97.462 mg/g. Out of the various isotherm models the Langmuir model was well fitted with the value of $R^2 = 0.9809$, showing a homogeneous surface for CR dye adsorption. The practical applications of the prepared nanocomposite were verified by testing in both river and synthetic water samples, achieved the recovery values within the acceptable limits, evidencing its potential for commercial-scale application in CR dye removal. Also, Yang B.Y (B.-Y. Yang et al., 2015) synthesized functionalized nylon6/Polypyrrole-core shell nanofibers material (PA6/PPy/NFM) via in-situ polymerization. The prepared nanocomposite was used as an adsorbent to remove the atrazine from aqueous solution. The maximum adsorption efficiency achieved by the nanocomposite was 14.8 mg/g. the reason for the high adsorption capacity is due to the interaction and electrostatic interaction.

In addition, a novel ternary magnetic composite containing the reduced GO, PPy and Fe₃O₄ nanoparticles was prepared by Wang H et al (Wang et al., 2015) using facile two step reaction route. The synthesized nanocomposite was evaluated against Cr (VI) by adsorption. The study revealed that the nanocomposite has high adsorption capacity of 293 mg/g which was higher than that of Fe₃O₄/rGO nanocomposite. It is reported that the synthesized material is a promising material for the removal of Cr (VI) ion from wastewater. The reason for the high adsorption performance is due to three steps. The first one is the Cr (VI) anion binds to the nanocomposite by

electrostatic interaction between the positively charged Fe_3O_4 and Cr (VI) species. Secondly, the Cr (VI) anion replaces the SO_4^{2-} which is doped on PPy by ion exchange process. Thirdly the Cr (VI) is reduced to Cr (III) through shuttling back and forth between PPy^+ and PPy^0 with the help of nitrogen group of PPy.

Likewise, $\text{Fe}_3\text{O}_4/\text{TiO}_2/\text{PPy}$ ternary magnetic composite for the removal of acid red G. was prepared by Feng J et al (Feng et al., 2017) which showed a high adsorption capacity of 161.8 mg/g for acid red G (ARG). The recycling studies revealed that the adsorption efficiency was retained after six adsorption/desorption cycles. The adsorption isotherm and the kinetic study were well explained by Langmuir and pseudo second order models. The reason for the adsorption is due to electrostatic interaction and H-bonding. It is evidenced that the introduced Fe_3O_4 not only acted as an adsorbent but also improved the reclaim performance.

Conclusion

The development and application of polymer nanocomposites have shown great promise in addressing the growing challenge of dye-contaminated wastewater. By integrating nanomaterials into polymer matrices, these composites exhibit superior adsorption capacities, enhanced surface area, chemical stability, and tailored surface functionalities making them effective candidates for removing a wide range of synthetic dyes. This review has highlighted the various fabrication methods, types of nanofillers used, adsorption mechanisms, and the factors influencing performance.

Overall, polymer nanocomposites represent a promising and sustainable approach for dye removal, contributing significantly toward cleaner water resources and more effective wastewater treatment technologies.

References

- Abbasian, M., Niroomand, P., & Jaymand, M. (2017). Cellulose/polyaniline derivatives nanocomposites: Synthesis and their performance in removal of anionic dyes from simulated industrial effluents. *Journal of Applied Polymer Science*, 134(39), 45352. <https://doi.org/10.1002/app.45352>
- Abu Elella, M. H., Amer, N., Abdallah, H. M., López-Maldonado, E. A., Mohamed, Y. M. A., El Nazer, H. A., & Mohamed, R. R. (2024). Novel high-efficient adsorbent based on modified gelatin/montmorillonite nanocomposite for removal of malachite green dye. *Scientific Reports*, 14(1), 1228. <https://doi.org/10.1038/s41598-024-51321-2>
- Agarwal, S., Tyagi, I., Gupta, V. K., Golbaz, F., Golikand, A. N., & Moradi, O. (2016). Synthesis and characteristics of polyaniline/zirconium oxide conductive nanocomposite for dye adsorption application. *Journal of Molecular Liquids*, 218, 494–498. <https://doi.org/10.1016/j.molliq.2016.02.040>
- Bello, O. S., & Ahmad, M. A. (2012). Coconut (*Cocos nucifera*) Shell Based Activated Carbon for the Removal of Malachite Green Dye from Aqueous Solutions. *Separation Science and Technology*, 47(6), 903–912. <https://doi.org/10.1080/01496395.2011.630335>
- Bello, O. S., Auta, M., & Ayodele, O. B. (2013). Ackee apple (*Blighia sapida*) seeds: A novel adsorbent for the removal of Congo Red dye from aqueous solutions. *Chemistry and Ecology*, 29(1), 58–71. <https://doi.org/10.1080/02757540.2012.686606>
- Bhaumik, M., Agarwal, S., Gupta, V. K., & Maity, A. (2016). Enhanced removal of Cr(VI) from aqueous solutions using polypyrrole wrapped oxidized MWCNTs nanocomposites adsorbent. *Journal of Colloid and Interface Science*, 470, 257–267. <https://doi.org/10.1016/j.jcis.2016.02.054>
- Boukoussa, B., Hakiki, A., Bouazizi, N., Beltrao-Nunes, A.-P., Launay, F., Paillet, A., Pillier, F., Bengueddach, A., Hamacha, R., & Azzouz, A. (2019). Mesoporous silica supported amine and amine-copper complex for CO₂ adsorption: Detailed reaction mechanism of hydrophilic

- character and CO₂ retention. *Journal of Molecular Structure*, 1191, 175–182.
<https://doi.org/10.1016/j.molstruc.2019.04.035>
- Buledi, J. A., Solangi, A. R., Mallah, A., Batool, M., Shah, Z., & Sherazi, S. T. (2024). Controlled removal of textile azo dye Congo red from aqueous system using PEG-ZnO/rGO composite. *Chemical Papers*, 78(11), 6531–6543. <https://doi.org/10.1007/s11696-024-03552-w>
- Chen, Y., Lin, Z., Hao, R., Xu, H., & Huang, C. (2019). Rapid adsorption and reductive degradation of Naphthol Green B from aqueous solution by Polypyrrole/Attapulgitite composites supported nanoscale zero-valent iron. *Journal of Hazardous Materials*, 371, 8–17.
<https://doi.org/10.1016/j.jhazmat.2019.02.096>
- Da'na, E. (2017). Adsorption of heavy metals on functionalized-mesoporous silica: A review. *Microporous and Mesoporous Materials*, 247, 145–157.
<https://doi.org/10.1016/j.micromeso.2017.03.050>
- Dehingia, B., Lahkar, R., & Kalita, H. (2024). Efficient removal of both cationic and anionic dyes from water using a single rGO/PSS nanocomposite membrane with superior permeability and high aqueous stability. *Journal of Environmental Chemical Engineering*, 12(2), 112393.
<https://doi.org/10.1016/j.jece.2024.112393>
- Feng, J., Sun, N., Wu, D., Yang, H., Xu, H., & Yan, W. (2017). Preparation of Fe₃O₄/TiO₂/Polypyrrole Ternary Magnetic Composite and Using as Adsorbent for the Removal of Acid Red G. *Journal of Polymers and the Environment*, 25(3), 781–791.
<https://doi.org/10.1007/s10924-016-0839-7>
- Fouda, Safaa. R., & Hassan, S. A. (2024). Impact of LaZnFe₂O₄ supported NiWO₄@D400-MMT@CMS/MMA nanocomposites as a catalytic system in remediation of dyes from wastewater. *Scientific Reports*, 14(1), 11644. <https://doi.org/10.1038/s41598-024-61565-7>
- Fu, X., Lin, J., Liang, Z., Yao, R., Wu, W., Fang, Z., Zou, W., Wu, Z., Ning, H., & Peng, J. (2023). Graphene oxide as a promising nanofiller for polymer composite. *Surfaces and Interfaces*, 37, 102747. <https://doi.org/10.1016/j.surfin.2023.102747>
- Gupta, V. K., Mittal, A., Kurup, L., & Mittal, J. (2006). Adsorption of a hazardous dye, erythrosine, over hen feathers. *Journal of Colloid and Interface Science*, 304(1), 52–57.
<https://doi.org/10.1016/j.jcis.2006.08.032>
- Kolya, H., & Kang, C.-W. (2023). Next-Generation Water Treatment: Exploring the Potential of Biopolymer-Based Nanocomposites in Adsorption and Membrane Filtration. *Polymers*, 15(16), 3421. <https://doi.org/10.3390/polym15163421>
- Kolya, H., & Tripathy, T. (2013). Hydroxyethyl Starch-g-Poly-(N,N-dimethylacrylamide-co-acrylic acid): An efficient dye removing agent. *European Polymer Journal*, 49(12), 4265–4275.
<https://doi.org/10.1016/j.eurpolymj.2013.10.012>
- Lellis, B., Fávoro-Polonio, C. Z., Pamphile, J. A., & Polonio, J. C. (2019). Effects of textile dyes on health and the environment and bioremediation potential of living organisms. *Biotechnology Research and Innovation*, 3(2), 275–290. <https://doi.org/10.1016/j.biori.2019.09.001>
- Li, J., Feng, J., & Yan, W. (2013). Excellent adsorption and desorption characteristics of polypyrrole/TiO₂ composite for Methylene Blue. *Applied Surface Science*, 279, 400–408.
<https://doi.org/10.1016/j.apsusc.2013.04.127>
- Maziya, K., Mzobe, S., Mahlangu, O., & Richards, H. L. (2024). Enhancing Dye Rejection and Antifouling Resistance of Thin Film Nanocomposite Nanofiltration Membranes Through the Incorporation of Bmep Grafted Graphene Oxide. SSRN. <https://doi.org/10.2139/ssrn.4987036>
- Oliveira, M. J., & Machado, A. V. (2013). Preparation of polymer-based nanocomposites by different routes. 1–22. <https://api.semanticscholar.org/CorpusID:55536972>
- Peng, W., Li, H., Liu, Y., & Song, S. (2017). A review on heavy metal ions adsorption from water by graphene oxide and its composites. *Journal of Molecular Liquids*, 230, 496–504.
<https://doi.org/10.1016/j.molliq.2017.01.064>
- Pires, B. C., Do Nascimento, T. A., Dutra, F. V. A., & Borges, K. B. (2019). Removal of a non-steroidal anti-inflammatory by adsorption on polypyrrole/multiwalled carbon nanotube composite—Study of kinetics and equilibrium in aqueous medium. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 578, 123583.
<https://doi.org/10.1016/j.colsurfa.2019.123583>
- Setshedi, K. Z., Bhaumik, M., Songwane, S., Onyango, M. S., & Maity, A. (2013). Exfoliated polypyrrole-organically modified montmorillonite clay nanocomposite as a potential adsorbent for Cr(VI) removal. *Chemical Engineering Journal*, 222, 186–197.
<https://doi.org/10.1016/j.cej.2013.02.061>

- Sherlala, A. I. A., Raman, A. A. A., Bello, M. M., & Asghar, A. (2018). A review of the applications of organo-functionalized magnetic graphene oxide nanocomposites for heavy metal adsorption. *Chemosphere*, 193, 1004–1017. <https://doi.org/10.1016/j.chemosphere.2017.11.093>
- Tripathy, T., Kolya, H., Jana, S., & Senapati, M. (2017). Green synthesis of Ag-Au bimetallic nanocomposites using a biodegradable synthetic graft copolymer; hydroxyethyl starch-g-poly (acrylamide-co-acrylic acid) and evaluation of their catalytic activities. *European Polymer Journal*, 87, 113–123. <https://doi.org/10.1016/j.eurpolymj.2016.12.019>
- Wang, H., Yuan, X., Wu, Y., Chen, X., Leng, L., Wang, H., Li, H., & Zeng, G. (2015). Facile synthesis of polypyrrole decorated reduced graphene oxide-Fe₃O₄ magnetic composites and its application for the Cr(VI) removal. *Chemical Engineering Journal*, 262, 597–606. <https://doi.org/10.1016/j.cej.2014.10.020>
- Yang, B.-Y., Cao, Y., Qi, F.-F., Li, X.-Q., & Xu, Q. (2015). Atrazine adsorption removal with nylon6/polypyrrole core-shell nanofibers mat: Possible mechanism and characteristics. *Nanoscale Research Letters*, 10(1), 207. <https://doi.org/10.1186/s11671-015-0903-6>
- Yang, F., Ou, Y., & Yu, Z. (1998). Polyamide 6/silica nanocomposites prepared by in situ polymerization. *Journal of Applied Polymer Science*, 69(2), 355–361. [https://doi.org/10.1002/\(SICI\)1097-4628\(19980711\)69:2%253C355::AID-APP17%253E3.0.CO;2-V](https://doi.org/10.1002/(SICI)1097-4628(19980711)69:2%253C355::AID-APP17%253E3.0.CO;2-V)
- Yang, Y., Chen, N., Feng, C., Li, M., & Gao, Y. (2018). Chromium removal using a magnetic corn cob biochar/polypyrrole composite by adsorption combined with reduction: Reaction pathway and contribution degree. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 556, 201–209. <https://doi.org/10.1016/j.colsurfa.2018.08.035>
- Zhao, Y., Chen, H., Li, J., & Chen, C. (2015). Hierarchical MWCNTs/Fe₃O₄/PANI magnetic composite as adsorbent for methyl orange removal. *Journal of Colloid and Interface Science*, 450, 189–195. <https://doi.org/10.1016/j.jcis.2015.03.015>
- Zhou, J., Lü, Q.-F., & Luo, J.-J. (2017). Efficient removal of organic dyes from aqueous solution by rapid adsorption onto polypyrrole-based composites. *Journal of Cleaner Production*, 167, 739–748. <https://doi.org/10.1016/j.jclepro.2017.08.196>

ETHICAL DILEMMAS FACED BY GRADUATE STUDENT RESEARCHERS IN HIGHER EDUCATIONAL INSTITUTIONS IN SOUTHEAST ASIA: A CASE STUDY

Carol Linda Kingston, PhD, Spicer Adventist University¹

Abstract

Ethics in research is so essential and adhering to ethical norms in research is essential. Ethical norms do incur cooperation from different disciplines and institutions and promote values for collaborative tasks with accountability for dissemination of results to public (Colnerud, 2015; Grimen, 2008). Consequentialism Theory supports the ability to decipher the rightness or wrongness in research conducted by Bentham and Mills (as cited by Sinnet Armstrong, 2003). This qualitative study (case study) seeks to examine the challenges and the issues of ethics of researchers of private HEI's in Philippines. Respondents were the student researchers of HEI's. Data was collected through observations, in-depth interviews and focus group and analysis was done through two cycles of coding, themes, and categories were developed. Findings showed the possible challenges and dilemmas faced by researchers ending with recommendations to bridge the gap of the ethical dilemmas faced by researchers in HEIs.

Keywords: HEIs, Ethics in Research, Ethical Norms, Qualitative Study.

Introduction

Ethics has its roots in ancient Greek philosophy about man's inquiry of moral life. Ethics denotes to a system of principles which has critically changed past considerations about choices and actions. Ethics is believed to be the branch of philosophy which contributes to the dynamics of decision making concerning what is right and wrong. All scientific research work, human activities, is controlled by individual, community and social values. Research ethics involves requirements on daily work, the protection of dignity of subjects or participants and the publication of the information in the research. Ethics in research is essential and adhering to ethical norms in research is essential. Ethical norms do incur cooperation from different disciplines and institutions. Ethics promote values for collaborative tasks with accountability for dissemination of results to public (Colnerud, 2015; Grimen, 2008).

¹ Corresponding Email: kingstonc@sau.edu.in

Literature Review

Ethics in research is essential and there are several aspects that involve in understanding the concepts. Ethical issues have become a concern with regard to research in the scientific field of research. The areas that would be more of a concern are like, informed consent, data collection, permission on data gathering, protection of the subjects, confidentiality, and other aspects in ethics (Flicker, Haans & Skinner, 2004; Flicker, Travers, Guta, McDonald & Meagher, 2007; Sales & Folkman, 2000). These were the studies that echoes the need for researcher to know and follow. Professional standards and ethical principles are examined in relation to responsible research practice (RRP) (WHO's Code of Conduct for Responsible Research, 2017). Internationally recognized guidelines for RRP have been published by the Singapore Statement on Research Integrity (The Singapore Statement on Research Integrity, 2010). According to the declaration, all facets of research should be conducted with integrity, responsibility, and professional respect, and collaborations should be conducted fairly. Put differently, it covers more facets of "integrity" beyond the operational parts of the research rather than only the procedural part (Israel and Drenth, 2016).

Maintaining academic and research requires ethical behavior with integrity. It influences everything we do and takes precedence over anything that could include, influence, change, or have an impact on people or communities or any living thing. To put it another way, ethics would raise our standard of living (LaFollette, 2007). The emphasis on moral conduct is essential in certain areas like law, finance, or medicine, but is also becoming more well-known across all academic sectors conducting research. Institutions are therefore expected to create ethical standards in research to uphold quality, originate or possess integrity, and most importantly, be open and honest effective by restricting any accusations of wrongdoing (Flite and Harman, 2013). This is particularly true for institutions of higher learning that support intellectual research and actions

Research Gap

With above studies that were done on the ethical issues, researchers have to follow certain ethical principles that are needed for research. However, there is a gap on how considerations and concepts have to be clearly explained with in-depth perception of the core principles and code of conduct in research ethics. Few studies have shown just partial understanding on the ethics of research. The research gaps here are the literature and evidence.

Theoretical Framework

Ethics in research is essential and there are several aspects that are involved in understanding the concepts. Ethics would imply from the beginning of the study areas that include- informed consent, data collection, permission on data gathering, protection of the subjects, confidentiality, and other aspects in ethics (Flicker et.al., 2004; Flicker, Travers, Guta, McDonald & Meagher, 2007; Sales & Folkman, 2000). Consequentialism Theory supports the ability to decipher the rightness or wrongness in research conducted by Bentham and Mills (as cited by Sinnet Armstrong, 2003).

These were the studies that echoed the need for researchers to know and follow. The purpose of this study is to explore how graduate students have applied the

concepts learned in research class. Furthermore, the new instructional practices that could have been taught in research classes would have been inculcated in the students' minds. These aspects would enhance better skills for future pedagogical methods in teaching research by research faculty and enhancement of the skills for students engaged in research. Furthermore, this study was to identify how ethics has been taught to graduate students and how far they are able to understand the concepts as well as the challenges they come across with regard to ethics. This study addressed two research questions. These questions are:

1. How was research ethics taught-to graduate students with regard to research context?
2. What challenges do graduate students face with regards to research ethics?

Having seen the complications faced by student researchers in understanding the ethics in research, the researcher wanted to see how student researchers are empowered with regard to doing research in their particular field. In addition, the researcher aimed to determine the role of teachers and professors in empowering students in following ethics while doing research. Finally, how does ethics and ethical behaviour contribute to the different fields of research?

Methodology

This part presents the methodology followed in this study, which includes research design, sampling procedures, research tools, and data collection process. Eventually, ethical principles included in the study are discussed. This is a qualitative research design- Single Case Study followed Merriam's framework. Creswell (2013) and Creswell and Poth (2018) describe a case as 'a bounded system' (for one case) or 'multiple bounded systems' (for more than one). Case here is the ethical dilemmas and the bounded systems are the students and the universities. This study sampling was a purposive sampling of graduate students studying in different private Higher Educational Institutions in Southeast Asia. Triangulation was done through observations, interviews, Focus Group, reflective journals and literature. Whether or not a phenomenon, this qualitative study offers a more thorough understanding of people's experiences. Therefore, in order to fully understand the breadth of any experience that a person may have, the researchers decided to conduct a qualitative study for this investigation. Researchers can have a deeper understanding and go deeper into the issue with qualitative research (Silver, 2000).

Research Design

This qualitative research (single case study) is the apt design as it visualizes the purpose of the study. There are several approaches in qualitative research and one of those is Case Study (Creswell, 2013; Creswell & Poth, 2018). The research design for this study is the exploratory case study- holistic. This study was conducted in a natural environment as a case study. Researchers can better understand the distinctiveness of groups of people who have encountered the same phenomena in a cultural setting by using case studies (Creswell, 2013; Merriam, 2009). An extensive inquiry that looks at contemporary happenings in the natural world is called a case study. The phenomenon can take many different forms, such as a program, an event, an activity, a problem, or a person. This occurrence takes place against the backdrop

of nature. The constrained system comprises of teachers, the facilities, and the resources of this specific 28 language center. The case in this study is the empowerment of teachers. There is a range of what is relevant or useful. Events, procedures, times, and places were all given defined boundaries. The student researchers were from different higher educational institutions in Southeast Asia. Social constructivism and interpretivism, which frequently permeate case study research design, serve as the study's philosophical pillars. The investigator aimed to investigate and comprehend the subjects in their natural environments. The purpose of this case study was to clarify the experiences of people who had certain things in common. Creswell (2008) supports the way that ethics in research learning and teaching in society are shaped over time in terms of behavior, attitudes, and beliefs. The purpose of this study was to determine how empowered student researchers with good ethical research behavior can influence ethics in research culture.

Research Tools

The researcher used an inductive method for data collection and analysis (Merriam, 2009). The researcher took field notes, pictures, and a two-day brief observation as well as inclusive attention to the attitudes and behaviors of the individuals. Semi-structured interviews were conducted with participants. The researcher initially had to obtain a letter of permission from the concerned research advisor. The researcher prepared a letter of permission from different gatekeepers before the actual data collection. The gatekeepers gave a signal to start the process of data collection. The researcher started the data collection procedure with the help of coordinators to obtain the participants. Then, notes were taken, and ideas were converted into themes. At the outset, participants were informed of their voluntary participation, and informed consent forms were given to them with their signatures. The interviews were brief and done in a simple manner for the comfort of the participants and the time for each interview was only 30-40 minutes and it was a three-day interview. Digital recorders were used for the interviews.

Description of the Setting

This case study was conducted to identify how graduate student researchers go through some ethical challenges while writing their thesis and dissertations in different universities. The study was conducted at different universities in Southeast Asia. The different universities do have ethics board but at times graduate students do face challenges while writing their research.

Description of the Participants

The eight participants of the study were students from different universities in Southeast Asia who are engaged in research. The Case here are the ethical dilemmas in research and the bounded system will be the participants (students) and the different universities. The sampling is a purposive sampling where the researcher chooses only those eight students who are having ethical challenges with regard to ethics in research which is the maximum variation. This study considered the selected students of different universities or research institutes in Southeast Asia. Table 1 describes the participants of the study.

Table 1: *Demographic Data of the Research Participants*

S.No	Gender	Age	Nationality
1.	Female	Between 30-35	Filipino
2.	Female	28	African
3.	Male	29	Indonesian
4.	Female	31	Indian
5	Male	32	Filipino
6+2	Female	23	African & Filipino

The researcher used purposive sampling because the goal was to spade work with small groups to comprehend the phenomenon of the participants. In addition, this was done to create a close relationship with the participants and to understand the facts in depth (Hesse-Biber & Leavy, 2011). Ten people were initially chosen, out of which eight participated in the study as they reached the saturation point. Five were males, and the other three were females from different education levels, age groups, and socioeconomic statuses.

Data Collection

After obtaining the approval from the Ethical Review Board, an Informed Consent letter was given to the teachers. After obtaining the Informed Consent, the interviews were conducted, transcribed, categorized, coded, and themes and trends that unfold from the data were identified. Overall, around eight candidates attended the interview as well as contributed to this study. Data was collected through semi-structured interviews and recorded digitally. The interviews lasted 30-40 minutes, and probing questions were asked. The interviews were conducted in English, as the teachers had command over the language. The observation was conducted prior to the interviews, which took two days. All observations were recorded as field notes. Documents such as photographs, course outlines, activities, and other resources were part of the data collection. Documented photographs were interesting and coincided with what I needed to find. Member checks were performed to ensure the accuracy of findings.

Data Analysis

For the data analysis of this study, the data collected was decoded, after transcribing the interview audio records. The first cycle and second cycle coding was done. Themes and trends were derived from the data using qualitative coding method.

Ethical Considerations

This study followed the ethical guidelines provided by the Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 2010; Creswell, 2013). The study assured the voluntary participation of the participants and the anonymous contribution of them by signing the consent form and avoiding the personal information. There is no item in the interview questionnaire that identified the participants. The participants were notified that their responses were confidential

and were used only for academic purposes. The responses were by no means imperiled by the candidates involved in the study. The study ensured that there was no mental stress for the researcher as well as the participants.

Researchers' Reflexivity

As a researcher, I have been involved in several research activities in language, research and linguistics. I have encountered a great deal of struggle in doing research. However, I have kept myself from inhibiting preconceived notions in this research. Indeed, research is quite tedious, but I wanted to know more about how researchers have gone through such ethical dilemmas right from the start to the end of the research process.

Results and Findings

The results and findings of this study are presented based on individual research questions. The findings suggest the following. First, more training and seminars would be effective in enhancing ethics and ethical behavior practices for graduate students who are writing. Second, qualified teachers are to help graduate students understand the concepts of ethics development while writing their theses and dissertations. Third, more team-building programs would boost and be an avenue for the ethical lessons for graduate students and sharpening their skills. Finally, this research's results support previous studies findings that integrate ethics and ethical behavior among graduate students within an educational institution.

Research Question 1: Research Ethics Taught to Graduate Students

Using the transcripts of interviews, field notes from the observations, and my reflective journals, Research Question 1 revealed that the level of research ethics is being taught at the graduate levels through average knowledge enhancement, self-upgrading skills, availability of resources, and cordial collaboration. Through thematic analysis, four themes emerged from the first research question like insufficient knowledge and discussion, absence of in-depth understanding, absence of practical applications, and voluntary participation.

Theme 1: Insufficient Knowledge and Discussion. Another way professional societies and organizations can better communicate guidelines and help researchers use them appropriately is by developing clearly worded guidelines and codes (Giorgini et. al ,2015). However, the participants have elucidated that it becomes very difficult when they do not get enough knowledge on ethics and the ethical behaviour that graduate students need in their thesis and dissertation writing. The participants did express their stress and anxiety. One of the participants stated,

During my masters, there was no separate subject for ethics in research but embedded in methods of research. However, it is not thoroughly discussed (P2).

Several educational systems do not prioritize ethics courses, leading to a gap in understanding moral principles and ethical reasoning. Insufficient training in critical thinking can hinder one's ability to analyze ethical issues effectively. Some learners may depend too heavily on authority figures for ethical guidance, rather than developing their own understanding. Pre-existing biases and beliefs can cloud

judgment and hinder the ability to engage with ethical concepts objectively (Bitter et al., 2020; Johansen et al., 2022)

Theme 2: Absence of In-Depth Understanding. Training in research ethics should be able to help researchers grapple with ethical dilemmas and resolving these dilemmas (Resnik, 2000). Students are presumed to be somewhat aware of the laws and standards they violate in these circumstances. However, instances where students violate the rules or conventions because they have a misunderstanding of what is expected of them have received very little attention. Likewise, little consideration has been given to complex grey-zone scenarios that need for context-sensitive decisions as opposed to the mindless adoption of precise, broad guidelines (Johansen et al., 2022). Participants were surprised and not sure about ethics and are not aware that they need to be ethically proficient when conducting research. One of the participants elucidated,

Honestly, I did not understand ethics in research not until my first attendance in an international conference (P3).

When there are explicit regulations, pupils may choose to break them out of will (an ethical shortcoming) or as a means of atoning for infractions (a motivating shortcoming). However, people might also disregard the law because they are unable to comprehend its requirements for whatever reason. This is known as an epistemic defect, which is a lack of knowledge or comprehension. Furthermore, because not every situation is covered by explicit rules, students frequently encounter challenging gray-zone scenarios in which performing honorably necessitates the ability to consider the context of a particular action and comprehend how the rules should be applied in that specific situation.

Theme 3: Absence of Practical Applications. With practicality in ethics, there are ethical considerations that are to be borne in mind, and all these aspects need practice (Barrett, 2007). Upholding strict guidelines for truthfulness, openness, and precision throughout the study process is part of maintaining research integrity. It encompasses actions including carrying out research with intellectual integrity, truthfully disclosing procedures and results, handling and managing data ethically, and protecting participant privacy and confidentiality (Chou et al., 2024). One of the participants said,

Even though we are taught less of ethics, we have never had hands-on-experience (P 4)

Students who are taught ethical guidelines can grow into moral scholars and contributing members of society who respect ethical ideals in their daily lives. Ethical principles provide a framework for determining right from wrong. They help students navigate complex situations by offering clear guidelines for behavior. Ultimately, ethical principles aim to enhance the well-being of individuals and communities by fostering an environment where ethical considerations are prioritized in decision-making.

Theme 4: Voluntary Participation. With the voluntary participation, participants can withdraw from a research study (Creswell, 2013). With regard to this

aspect, informed consent is important (Israel & Hay, 2006). The accuracy and success of a study depends heavily on volunteer involvement in data collecting using the survey method. In research ethics, voluntariness—which is often expressed but rarely understood or applied correctly—is characterized as a decision or action taken independently of outside pressure or compelling exposure (Kılınç & Fırat, 2017). One participant espoused,

While attending the International Conference, I then realize that your participants are voluntary and can withdraw any time if they are not comfortable (P5).

Voluntary participation in research is a fundamental ethical principle that ensures individuals have the right to choose whether to take part in a study without coercion or undue influence. Respecting participants' autonomy means acknowledging their right to make their own choices regarding involvement in research. This principle emphasizes that participation should be a personal decision. Participants should not feel pressured or coerced into participating. This includes avoiding undue influence, such as offering excessive incentives or leveraging authority.

Research Question 2: Ethical Challenges Graduate Students Faced in Research

The analysis of the data of Research Question 2 showed that there are ethical challenges that graduate students faced in research, and these challenges can be taken in a serious manner. The main themes were (a) participants selection, (b) securing permission, (c) absence of specialization of the course, (d) absence of ethical review board, and (e) consideration of ethics in different study designs. These themes had a significant impact on ethical challenges that graduate students faced while writing their thesis and dissertations.

Theme 1: Participants Selection. Participant selection should have a clear rationale and fulfil a specific purpose as described as 'purposive' (Collingridge & Gantt 2008). Yin (2013) emphasizes how crucial it is for the researcher to "have defined a set of operational criteria. Therefore, candidates will be deemed qualified to serve as cases" before they may access study cases. One of the participants espoused,

Since ethics requires voluntary participation, it is sometimes difficult to recruit participants(P2)

For research to be successful and maintain integrity, participants must be carefully chosen. Researchers can make sure they choose a representative and pertinent sample by carefully evaluating the study's goals, employing suitable sampling techniques, and abiding by ethical guidelines. In the end, this focus on participant selection improves the reliability and relevance of the study results.

Theme 2: Securing Permission. Reciprocity is a key ingredient in several of the strategies in terms of securing both the participation of an organization and the cooperation of prospective informants within (Shenton & Hayter, 2004). Study ideas that have received further permission from pertinent health, education, and social services agencies must also have research ethical approval. It is believed that research

is able to start as soon as ethical approval is received and agreed-upon entry to the study site and participants has been verified (McFadyen & Rankin, 2016). Participants have expressed the complexity of getting permission for their study. One of them said,

The problem I encountered when it comes to ethics in research is getting permission for my study(P3)

The gatekeeping procedure can occasionally pose fresh difficulties to the researcher. Despite the fact that it is, research cannot be conducted due to gatekeeping procedure. There is still a significant chance to learn about using reflection and reflexivity to maintain gatekeeping.

Theme 3: Absence of Specialization of the Course. To have a deeper comprehension in Ethics in research is essential as there are explicit guidelines in doing research (Sanjali et al., 2015). For students to develop critical thinking, moral reasoning, and responsible citizenship, ethics must be incorporated into the curriculum. By raising students' understanding of society concerns and the consequences of their own behavior, ethics education encourages them to make responsible decisions. Ethical rules apply to several professions. Students are better equipped to handle moral conundrums in their future employment when ethics are introduced into the classroom. By helping students better understand their responsibilities as citizens, ethics education encourages civic engagement and active participation in democratic processes (Jazani & Ayoobzadeh, 2012). Participant 6 said,

There is no specialization of the course on ethics in research (P6)

Incorporating ethics into the curriculum is vital for preparing students to face moral challenges in their personal and professional lives. Ethics helps in fostering critical thinking and a sense of social responsibility. Besides, an ethics curriculum helps cultivate informed, engaged, and ethical citizens.

Theme 4: Absence of Ethical Review Board. Ethical Review Boards are given the responsibility to ensure that researchers consider the well-being of their subjects, and if risks are involved, to minimize harm (Aluwihare-Samaranayake, 2012; Christians, 2007). The possibility that study could harm a research participant's relationships, finances, or reputation, or that it could disturb, offend, or traumatize them, is a common worry of ethics review boards. Sometimes it appears that the variety of possible research-related harms that ERBs anticipate is only constrained by the creativity of the several reviewers (Giraud et al., 2019). One participant stated,

Another problem is that our institution does not have an Ethical Review Board but only in-house -review so my research for publication cannot be published (P3).

The procedure of doing research with human subjects requires the presence of ethical review boards. ERBs are essential to preserving the integrity and legitimacy of scientific research because they safeguard participant rights, guarantee ethical compliance, and promote an ethical research culture. Besides to protecting people, their effort improves the caliber and reliability of study findings.

Theme 5: Consideration of Ethics in different Study Designs. The role of ethical review is to ensure that ethical standards in research are met (Mooney-Somers & Olsen, 2017). Varied study designs have varied ethical considerations since each kind of research has its own set of difficulties and ramifications for participants. Particularly when gathering sensitive data, researchers must make sure that participant names and data are secure. Although informed permission is frequently necessary, there may be exceptions for some observational studies, especially when they take place in public places. Researchers should take care to reduce any possible injury or discomfort that volunteers may experience as a result of being observed (Flicker et al., 2004; Giraud et al., 2019). One of the participants expressed,

We need to consider ethics in different study designs (P4)

In all study designs, research ethics are crucial. Through the consideration of the particular ethical issues related to each design, researchers can protect participants, maintain the integrity of their work, and responsibly advance knowledge. Respect and trust are fostered in the public and research community by this dedication to ethical norms.

Contribution to the Theory

So, Consequentialism Theory should not only support the ability to decipher the rightness or wrongness in research conduct but also considerations and concepts have to be clearly explained. Besides, it is to be dealt with in-depth perception of the core principles and code of conduct in research ethics. This will help researchers grow professionally while doing research studies in several fields.

Conclusion

Ethics in research is essential for students doing research. A researcher should try not to be judgmental but learn it well. Total involvement of teacher with the students will help them inculcate ethical behavior in research. Persistence and motivation will help in the development and hands-on-experience. Furthermore, steadily learning the concepts without too much pressure and ethics in research should be intentional.

References

- Aluwihare-Samaranayake, D. (2012). Ethics in qualitative research: A view of the participants' and researchers' world from a critical standpoint. *International Journal of Qualitative Methods*, 11(2), 64-81.
- Barrett, M. (2007). Practical and ethical issues in planning research. *Research Methods in Psychology*, 24-48. https://www.researchgate.net/profile/Martyn-Barrett/publication/268273319_Practical_and_Ethical_Issues_in_Planning_Research/links/5726049e08ae586b21e04501/Practical-and-Ethical-Issues-in-Planning-Research.pdf
- Bitter, C. C., Ngabirano, A. A., Simon, E. L., & Taylor, D. M. (2020). Principles of research ethics: A research primer for low-and middle-income countries. *African Journal of Emergency Medicine*, 10, 125-129. <https://doi.org/10.1016/j.afjem.2020.07.006>
- Chou, C., Lee, I. J., & Fudano, J. (2024). The present situation of and challenges in research ethics and integrity promotion: Experiences in East Asia. *Accountability in Research*, 31(6), 576-599. <https://doi.org/10.1080/08989621.2022.2155144>
- Christians, C.G. (2007). Neutral science and the ethics of resistance. In N.K.

- Denzin & M.D. Giardina (Eds.), Ethical futures in qualitative research: Decolonizing and politics of knowledge (pp. 44-66). Walnut Creek, California: Left Coast Press
- Collingridge D.S. & Gantt E.E. (2008) The quality of qualitative research. *American Journal of Medical Quality* 23(5), 389–395. <https://journals.sagepub.com/doi/abs/10.1177/1062860619873187>
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among the five approaches* (3rd Ed). London, UK: Sage.
- Creswell, J.V., & Poth, C.N. (2018). *Qualitative inquiry and research design. Choosing among five approaches* (4th ed). Thousand Oaks, CA: Sage.
- Flicker, S., Haans, D., & Skinner, H. (2004). Ethical dilemmas in research on Internet communities. *Qualitative Health Research*, 14(1), 124-134. <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=dd9fe8ddaeb20c5a76f4a2b73fa8f4a21c652849>
- Flicker, S., Travers, R., Guta, A., McDonald, S., & Meagher, A. (2007). Ethical dilemmas in community-based participatory research: recommendations for institutional review boards. *Journal of Urban Health*, 84(4), 478-493. <https://doi.org/10.1007/s11524-007-9165-7>
- Giorgini, V., Mecca, J. T., Gibson, C., Medeiros, K., Mumford, M. D., Connelly, S., & Devenport, L. D. (2015). Researcher perceptions of ethical guidelines and codes of conduct. *Accountability in research*, 22(3), 123-138. <https://doi.org/10.1080/08989621.2014.955607>
- Giraud, C., Cioffo, G. D., Kervyn de Lettenhove, M., & Ramirez Chaves, C. (2019). Navigating research ethics in the absence of an ethics review board: The importance of space for sharing. *Research Ethics*, 15(1), 1-17. <https://doi.org/10.1177/1747016117750081>
- Israel, M., & Hay, I. (2006). *Research ethics for social scientists*. London, UK: Sage. Retrieved from https://books.google.com.ph/books?hl=en&lr=&id=4Qtuv0CBuKkC&oi=fnd&pg=PP2&q=Informed+Consent+by+Israel+and+Hay,+2006&ots=U6Hu_coLw3&sig=Jb3JaosYURyD9c1JG8I9tW9QgJE&redir_esc=y#v=onepage&q=Informed%20Consent%20by%20Israel%20and%20Hay%2C%202006&f=false
- Jazani, N., & Ayoobzadeh, M. (2012). The impact of ethics training course on ethical behaviors of management students. *International Business Research*, 5(11), 162. https://www.researchgate.net/publication/271321824_The_Impact_of_Ethics_Training_Course_on_Ethical_Behaviors_of_Management_Students
- Johansen, M. W., Goddixsen, M. P., Centa, M., Clavien, C., Gefenas, E., Globokar, R., ... & Lund, T. B. (2022). Lack of ethics or lack of knowledge? European upper secondary students' doubts and misconceptions about integrity issues. *International Journal for Educational Integrity*, 18(1), 1-20. <https://doi.org/10.1007/s40979-022-00113-0>
- Kılınc, H., & Fırat, M. (2017). Opinions of expert academicians on online data collection and voluntary participation in social sciences research. *Educational Sciences: Theory & Practice*, 17(5).1-26. <http://dx.doi.org/10.12738/estp.2017.5.0261>
- McFadyen, J., & Rankin, J. (2016). The role of gatekeepers in research: learning from reflexivity and reflection. *GSTF Journal of Nursing and Health Care (JNHC)*, 4(1). 1-7. https://scholar.google.co.in/scholar?hl=en&as_sdt=0%2C5&as_vis=1&q=The+Role+of+Gatekeepers+in+Research%3A+Learning+from+Reflexivity+and+Reflection&btnG=
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. Jossey-Bass.
- Mooney-Somers, J., & Olsen, A. (2017). Ethical review and qualitative research competence: Guidance for reviewers and applicants. *Research Ethics*, 13(3-4), 128-138. <https://doi.org/10.1177/1747016116677636>
- Resnik, D. B. (2011). What is ethics in research & why is it important. *National Institute of Environmental Health Sciences*, 1(10). https://library.mtshohoe.edu.gh/index.php?p=show_detail&id=865&keywords=
- Sales, B. D., & Folkman, S. E. (2000). *Ethics in research with human participants*. American Psychological Association. psycnet.apa.org
- Sanjari, M., Bahramnezhad, F., Fomani, F. K., Shoghi, M., & Cheraghi, M. A. (2014). Ethical challenges of researchers in qualitative studies: the necessity to develop a specific guideline. *Journal of Medical Ethics and history of Medicine*, 7. 1- 6. <https://pmc.ncbi.nlm.nih.gov/articles/PMC4263394/pdf/jmehm-7-14.pdf>
- Shenton, A. K., & Hayter, S. (2004). Strategies for gaining access to organizations and informants in qualitative studies. *Education for Information*, 22(3-4), 223-231.

- https://www.researchgate.net/profile/Andrew-Shenton/publication/266879621_Strategies_for_gaining_access_to_organisations_and_informants_in_qualitative_studies/links/56cd506608ae059e37509256/Strategies-for-gaining-access-to-organisations-and-informants-in-qualitative-studies.pdf
- Sinnott-Armstrong, W. (2003). Consequentialism. Retrieved from <https://stanford.library.sydney.edu.au/entries/consequentialism/>
- Yin, R. K. (2013). *Case study research: Design and methods* (5th ed.). London: Sage publications.