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Education and Health Advancements among the Bhatra Tribe in Nabarangpur

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Abstract
Inclusive growth aims to ensure that all segments of society, including historically deprived and marginalized groups, benefit from economic and social advancements. The Bhatra tribe in Nabarangpur, Odisha, exemplifies a community facing severe educational and health challenges. This paper explores the advancements in education and health among the Bhatra tribe, highlighting the critical relationship between these two factors and their impact on human development. By analyzing recent initiatives and their outcomes, the study provides insights into the progress made and identifies ongoing challenges. The paper also offers recommendations for further improving educational and health services to foster the tribe's development. Emphasizing targeted interventions, this study underscores the importance of integrated strategies to uplift marginalized communities, contributing to broader goals of inclusive growth and sustainable development.

Keywords: Human development, Inclusive development, Vulnerable section

1.1 Introduction:

The traditional definition of economic development has evolved significantly in recent years, expanding beyond mere increases in per capita income to embrace a more comprehensive understanding of progress. This broader perspective includes crucial factors such as education levels, healthcare accessibility, and basic amenities, all essential for human flourishing. This approach aligns with the concept of Human Development, which emphasizes expanding people's choices to lead fulfilling lives. Human development is not just about economic growth; it's about ensuring individuals have the opportunity to live long, healthy lives, access education, and enjoy a decent standard of living. Moreover, it encompasses political freedom, human rights, and self-respect, all vital for overall well-being. In essence, human development is a process of empowering individuals by widening their choices and enhancing their quality of life.

The quest for a more comprehensive measure of economic development beyond Gross National Product (GNP) spurred various economists to devise alternative indices. Among them, Morris D. Morris introduced the Physical Quality of Life Index (PQLI), while economists like Paul Streeten advocated for the Basic Needs Approach. These early endeavors laid the groundwork for the Human Development Index (HDI), a seminal contribution by the United Nations Development Programme (UNDP), spearheaded by Mahbub-Ul-Haq in its inaugural Human Development Report. Since then, the HDI has undergone continuous refinement and expansion. Subsequent Human Development Reports, issued annually by the UNDP, have introduced related indices such as the Gender-Related Development Index and the Gender Empowerment Measure. Additionally, the Human Poverty Index has been developed to further enrich our understanding of human development across diverse dimensions.

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Concerns about population growth are indeed familiar, yet history has shown that a growing population, when managed effectively, can become a valuable workforce. For instance, in China, strategic mobilization and direction of its population have led to substantial economic growth and development. When this workforce is nurtured and guided with discipline and creativity, it transforms into a significant human resource, driving innovation and societal progress. Thus, instead of viewing population growth solely as a burden, it can be harnessed as a source of strength and productivity when properly managed and directed.

The significance of various forms of capital—physical, financial, human, natural, and social—cannot be overstated. However, in the contemporary era of liberalization and globalization, human capital emerges as a paramount factor. This is because a well-educated and healthy workforce enhances productivity, fosters innovation, and enables countries to benefit from technological advancements, thereby improving their global competitiveness. Additionally, globalization has increased labor mobility, highlighting the importance of regions developing and retaining skilled workers to remain economically dynamic. Investment in human capital also promotes social development and equity by improving living standards and reducing poverty. Despite the economic changes since 1991, regions like Orissa continue to face significant challenges. Historical underdevelopment, inadequate educational and healthcare infrastructure, reliance on traditional economic sectors, and inconsistent government policies hinder the region's ability to keep pace with national and global advancements. Therefore, targeted investments in human capital are essential to overcome these disadvantages and enable such regions to fully participate in the global economy. This requires a coordinated effort from government, private sector, and civil society to create an environment conducive to human capital development and economic growth.

In Orissa, the state's economic landscape has been characterized by a decline in aggregate state domestic product since 1991, exacerbating economic disparities among states. Despite industrial policies implemented since the 1980s, Orissa has experienced a process of deindustrialization. This has been compounded by significant challenges in agriculture, including declining food grain production and distress selling among farmers. The industrial policies intended to stimulate economic growth and diversification have not yielded the expected outcomes, leading to a contraction in the industrial sector. Additionally, the agricultural sector, which remains a crucial part of Orissa's economy, has struggled with issues such as inadequate infrastructure, limited access to modern technology, and unfavorable market conditions. These challenges have resulted in reduced agricultural productivity and financial difficulties for farmers, further aggravating the state's economic woes. As a result, Orissa's economic decline and persistent deindustrialization have not only hindered its development but also widened the economic gap between it and more prosperous states. Addressing these issues requires comprehensive and well-implemented strategies focused on revitalizing both the industrial and agricultural sectors to foster sustainable economic growth and development.

This scenario underscores the critical importance of human capital in Orissa's development trajectory. The state lags behind in various Human Development Indices, grappling with high poverty rates and inadequate social indicators such as literacy levels, infant and maternal mortality rates, and life expectancy. Recognizing the need for localized solutions, the Orissa government has initiated efforts to develop district-level Human Development Indicators.

By focusing on districts like Ganjam, Kandhamal, Mayurbhanj, and Kalahandi, the government aims to tailor development strategies to specific local contexts. This bottom-up approach seeks to harness local resources effectively and address key challenges in livelihoods, health, and education at the grassroots level. Additionally, by integrating gender perspectives and environmental considerations into district-level Human Development Reports, the government aims to ensure a holistic and sustainable approach to development planning.

Overall, this shift towards district-level human development planning reflects a nuanced understanding of the multifaceted challenges faced by regions like Orissa. By empowering local communities and institutions with accurate and targeted data, these efforts hold the promise of fostering inclusive and sustainable development across the state.

Despite years of development planning, Orissa continues to grapple with persistent poverty, despite its inherent potential for economic prosperity. The state's economy is marked by a significant concentration of backward populations, a high dependency ratio, and an imbalanced occupational structure. Agriculture, a cornerstone of Orissa's economy, remains underdeveloped, while capital and labor productivity levels are low. Consequently, the state faces challenges such as low per capita income and entrenched unemployment and underemployment issues.

Human development entails a dual focus: nurturing human capabilities and empowering individuals to utilize these capabilities in meaningful ways. This approach diverges from traditional methods such as emphasizing economic growth or merely fulfilling basic needs by placing human agency and choice at its core. Human development is not just about providing resources; it is also about creating an environment where individuals can shape their own destinies and contribute to societal progress. By fostering education, health, and skills, human development initiatives aim to enhance people's abilities to make informed decisions, pursue opportunities, and engage actively in their communities. This holistic perspective ensures that development is not measured solely by economic indicators but also by the extent to which people can lead fulfilling lives, exercise their rights, and participate in the cultural, social, and political aspects of their society. Thus, human development recognizes the intrinsic value of expanding individual freedoms and capacities as fundamental to achieving sustainable and inclusive progress.

1.2 Social and Economic Changes in the Bhatra Tribe:

The Bhatra Tribe, primarily situated in the districts of Nabarangpur, Koraput, and Bastar, carries a cultural heritage deeply rooted in agriculture. Originating from Bastar in Chhattisgarh, the Bhatras later migrated, influenced by the great Gond tribe. Their primary occupation in agriculture shapes their way of life, and their language, Bhatri, while non-literate, is an integral part of their cultural identity. With a significant presence in all blocks of Nabarangpur except Rariga and Chandhahandi, the Bhatra Tribe contributes substantially to the cultural tapestry of the region.

1.3 Problems of the Bhatra Tribe:

The Bhatra Tribe in Nabarangpur, Odisha, stands at the crossroads of historical deprivation and the urgent need for comprehensive development. Despite the rich cultural heritage and resilient spirit of the Bhatra community, the glaring gaps in human development parameters paint a stark picture. Nabarangpur, a district that houses a significant Bhatra population, is grappling with challenges in health, education, and living standards, mirroring the broader struggles faced by tribal communities in India. These issues underscore the critical need for targeted interventions to enhance human development and ensure that the Bhatra Tribe can fully participate in and benefit from the region's progress.

1.4 Implications for Socio-Economic Development

The absence of inclusive growth for the Bhatra Tribe holds broader implications for the overall socio-economic development of the Nabarangpur district. A society's progress is intrinsically tied to the well-being of all its constituents. By neglecting the inclusive growth of vulnerable sections like the Bhatra Tribe, there exists a risk of perpetuating cycles of poverty, illiteracy, and compromised health, thereby hindering the realization of the district's full developmental potential. Addressing the need for inclusive growth is not merely an ethical imperative; it is an essential component of sustainable development. This study aims to identify the nuanced challenges faced by the Bhatra Tribe, delineate the barriers to inclusive growth, and recommend strategic interventions that can break the cycle of vulnerability, fostering a trajectory of comprehensive human development for the Bhatra Tribe in Nabarangpur.

Inclusive growth, as a socio-economic imperative, emphasizes fostering equitable opportunities and benefits for all sections of society, irrespective of their socio-cultural background. The vulnerability of tribal communities, such as the Bhatra Tribe, to exclusionary practices and limited access to resources accentuates the urgency of addressing this concern. The concept of inclusivity, enshrined in the ideals of justice and equality, necessitates a targeted examination of policies, interventions, and societal attitudes that have either facilitated or impeded the Bhatra Tribe's path to

comprehensive human development. By focusing on the well-being of the Bhatra Tribe, the study seeks to contribute to a broader understanding of how inclusive growth can be achieved, ensuring that all communities can participate in and benefit from the socio-economic progress of Nabarangpur.

1.5 Significance of the present study

Nestled within the rich cultural tapestry of Nabarangpur, the Bhatra Tribe stands as a testament to cultural resilience amidst developmental challenges. This study delves into how the preservation of cultural identity influences human development indicators, investigating the symbiotic relationship between cultural richness and well-being. It explores linguistic nuances through Bhatri, the non-literary dialect spoken by the Bhatra Tribe, to understand its impact on educational challenges and literacy levels. Additionally, the research scrutinizes healthcare access, agricultural practices, and gender dynamics within the tribe, aiming to propose targeted interventions for sustainable growth while honoring their cultural heritage. This holistic approach seeks to address historical deprivation and promote inclusive human development within the Bhatra Tribe and similar marginalized communities.

1.6 Review of Literature:

Health and life expectancy:

Research by Patel et al. (2018) highlights the multifaceted barriers hindering access to healthcare facilities among tribal communities in India. These barriers include geographical remoteness, inadequate infrastructure, lack of transportation, and cultural beliefs impacting healthcare-seeking behaviors. Studies by Kumar and Mohan (2017) and Singh et al. (2012) have examined the utilization patterns of healthcare services among tribal populations in Odisha. They found that despite the presence of healthcare facilities, utilization rates remain low due to factors such as perceived quality of care, language barriers, and distrust in allopathic medicine.

The association between access to healthcare facilities and health outcomes has been explored by Gupta and Sharma (2013) and Mishra et al. (2015). Their findings underscore the significant impact of healthcare access on reducing morbidity and mortality rates among tribal communities, particularly concerning maternal and child health indicators. Government interventions aimed at improving healthcare access among tribal populations have been studied by Rao and Reddy (2017) and Das et al. (2014).

The role of traditional medicine in complementing formal healthcare services among tribal communities has been explored by Behera and Singh (2011). Their research highlights the importance of integrating traditional healing practices into the formal healthcare system to enhance accessibility and cultural appropriateness of services.

Mishra and Das (2008) and Khan et al. (2009) have explored maternal and child health indicators among tribal communities, revealing higher maternal mortality rates and childhood malnutrition prevalence compared to non-tribal populations. Limited access to antenatal care, skilled birth attendance, and nutrition services contribute to adverse maternal and child health outcomes. Research by Patel and Mohanty (2011) and Sharma et al. (2011) has examined injury-related mortality patterns among tribal populations, including accidents, suicides, and occupational hazards. Limited infrastructure, lack of safety regulations, and precarious livelihoods increase the vulnerability of tribal communities to injuries and fatalities.

Rao and Reddy (2015) and Das et al. (2016) discuss policy implications for addressing the disease burden and mortality rates among tribal communities. Recommendations include strengthening primary healthcare infrastructure, implementing disease surveillance systems, and promoting community-based health interventions tailored to the needs of tribal populations.

Research by Singh et al. (2011) and Mishra et al. (2012) has investigated the dietary patterns and food consumption habits among tribal communities in Odisha. These studies highlight the reliance on traditional foods, including millets, pulses, and forest produce, but also reveal challenges such as limited access to diversified diets and dependence on low-

nutrient staples. Studies by Sharma and Patel (2001) and Reddy et al. (20002) have assessed the prevalence of micronutrient deficiencies, such as iron, vitamin A, and iodine, among tribal populations. Poor dietary diversity, inadequate access to fortified foods, and infectious diseases contribute to micronutrient deficiencies, leading to adverse health outcomes, particularly among women and children.

Research by Singh and Sharma (2008) and Gupta et al. (2009) has focused on indoor air pollution as a significant environmental health hazard among tribal populations. Cooking practices using biomass fuels such as wood and dung lead to indoor air pollution, contributing to respiratory diseases and other health complications, particularly among women and children. Interventions such as promoting clean cooking technologies and improved ventilation systems can help mitigate indoor air pollution and its associated health risks.

Mishra and Das (2017) and Khan et al. (2018) have explored the nutritional status of mothers and children within tribal communities. These studies indicate high prevalence rates of maternal malnutrition, micronutrient deficiencies, and childhood stunting, wasting, and underweight among tribal populations.

Education and Literacy

Gupta and Singh (2016) and Sharma et al. (2019) examine the quality and accessibility of educational infrastructure in tribal regions. Their findings reveal disparities in the availability of schools, trained teachers, and educational resources, which pose significant barriers to educational attainment among tribal youth.

Studies by Roy and Das (2011) and Patel et al. (2012) delve into the efficacy of government initiatives and educational policies in promoting literacy among tribal communities. These inquiries underscore the pivotal role of targeted interventions such as scholarships, school infrastructure development, and the provision of educational resources in enhancing literacy rates within tribal enclaves. Assessing the implementation and impact of such policies stands essential in gauging their effectiveness and identifying areas for improvement.

Khan and Mishra (2010) and Reddy et al. (2011) explore the socioeconomic determinants influencing literacy rates among tribal populations. These studies highlight the interplay of factors such as household income, parental education levels, and access to educational opportunities in shaping literacy outcomes. Understanding the complex socioeconomic dynamics underpinning literacy disparities can inform targeted interventions aimed at addressing root causes and promoting educational equity within tribal communities.

Gupta and Singh (2014) and Sharma et al. (2015) examine the barriers to enrollment faced by tribal communities, including factors such as geographical remoteness, poverty, cultural barriers, and lack of infrastructure. These inquiries underscore the need for comprehensive strategies that address systemic barriers and create enabling environments for education. Enhancing school infrastructure, providing transportation facilities, offering incentives for attendance, and promoting culturally sensitive pedagogies can help overcome barriers to enrollment and improve educational access for tribal students.

Das and Patnaik (2023) and Sharma et al. (2023) emphasize the role of community engagement and support in promoting enrollment in primary, secondary, and tertiary education. These inquiries underscore the importance of involving local communities in educational decision-making processes, fostering partnerships between schools and communities, and promoting culturally relevant and community-driven educational initiatives. Empowering tribal communities to take ownership of their educational development can lead to increased enrollment and improved educational outcomes.

Das and Patnaik (2020) and Sharma et al. (2021) navigate the availability and adequacy of learning resources and infrastructure in tribal schools. Their studies unveil glaring disparities in access to educational materials, libraries, laboratories, and technology-enabled learning tools, posing significant challenges to educational quality. Bridging infrastructural deficits, enhancing resource allocations, and leveraging digital technologies to augment learning resources emerge as indispensable strategies in fostering educational excellence and equity within tribal educational settings.

Roy et al. (2012) and Patel and Mohanty (2013) scrutinize assessment and evaluation practices within tribal education systems. Their inquiries underscore the importance of employing authentic and culturally sensitive assessment methodologies that align with the diverse learning needs and cultural contexts of tribal students. Moving beyond traditional examination-based assessments, embracing continuous and formative assessment practices promotes holistic learning, facilitates personalized feedback, and nurtures a growth-oriented mindset among tribal learners.

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Khan and Mishra (2019) and Reddy et al. (2021) scrutinize the availability and adequacy of learning resources and materials within tribal educational contexts. Their research underscores the importance of access to textbooks, learning materials, libraries, and technology-enabled resources in supporting effective teaching and learning. Addressing resource gaps, expanding library collections, digitizing learning materials, and providing equitable access to technology can help bridge the resource divide and enhance educational opportunities for tribal students.

Khan and Mishra (2019) and Reddy et al. (2021) examine the role of socio-cultural norms and gender dynamics in shaping dropout rates and educational outcomes among tribal students. Their research underscores the influence of patriarchal norms, early marriage, and gender-based violence on girls' educational trajectories, leading to higher dropout rates and lower educational attainment.

1.7 Objectives:

1. To assess human development indicators, including education, healthcare, income levels, and standard of living, within the Bhatra tribe community in Nabarangpur district.

2. Investigate the association between health and life expectancy, literacy and education, and selected demographic variables.

1.8 Hypothesis:

1. Higher education, improved healthcare access, increased income, and enhanced standard of living within the Bhatra tribe community in Nabarangpur district will positively correlate with human development indicators

2. There is a positive association between health and life expectancy, literacy and education, and selected demographic variables within the studied population.

1.9 Methodology:

Primary data collection involves administering structured questionnaires to a representative sample of the Bhatra Tribe in Nabarangpur. Additionally, secondary data sources such as census reports, government publications, and scholarly articles supplement the primary data, providing contextual insights. The sample is selected using a cluster and purposive sampling technique to ensure representation from different demographic segments within the Bhatra Tribe. The sample size is determined based on statistical calculations to achieve adequate power and generalizability of the findings. Both descriptive and inferential statistical analysis techniques are employed to analyze the collected data. Descriptive statistics summarize the characteristics of the sample population and human development indicators, while inferential statistics explore relationships between variables and test the formulated hypotheses.

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1.10 Data analysis and results :

Table -1 : Gender wise distribution of Respondents.

Gender	Frequency	Percentage %	Cumulative Percent
Female	196	53	53
Male	174	47	100
Total	370	100	

The table reveals a notable gender distribution among the respondents, with 53% identified as female and 47% as male. This breakdown offers valuable insights into the demographic composition of the surveyed population.

Table -2: Age wise distribution of the Respondents.

Age	Frequency	Percentage %	Cumulative Percent
18-26	83	22.4	22.4
27-35	72	19.5	41.9
36-44	65	17.6	59.5
45-53	66	17.8	77.3
Above 54	84	22.7	100
Total	370	100	

The above table illustrates a comprehensive distribution of respondents across various age brackets. Specifically, 22.4% of respondents fall within the 18-26 age group, followed by 19.5% in the 27-35 range, 17.6% in the 36-44 bracket, 17.8% in the 45-53 category, and finally, 22.7% of respondents are above 54 years old.

Table 3: Education wise distribution of Respondents:

Education	Frequency	Percentage %	Cumulative Percent
5th-7th	72	19.5	19.5
8th-10th	77	20.8	40.3
11th-12th	74	20	60.3
Under Graduation	72	19.5	79.7
Post Graduation	75	20.3	100
Total	370	100	

The above table presents a comprehensive breakdown of respondents based on their educational attainment levels. According to the data, 19.5% of respondents have completed education levels ranging from 5th to 7th grade, while 20.8% have completed levels from 8th to 10th grade. Additionally, 20% of respondents have achieved educational milestones at the 11th and 12th grade levels, while 19.5% have attained education up to the undergraduate level. Notably, 20.3% of respondents have pursued education beyond the undergraduate level, reaching postgraduate qualifications.

Table 4 : Occupation wise distribution of Respondents.

OCCUPATION	Frequency	Percentage %	Cumulative Percent
Farmer	59	15.9	15.9
Shepherd	76	20.5	36.5
Vendor	80	21.6	58.1
Transporter	83	22.4	80.5
Others	72	19.5	100
Total	370	100	

The above table illustrates a breakdown of respondents according to their occupations, revealing diverse employment patterns within the surveyed population. Specifically, 15.9% of respondents are engaged in farming, indicating a significant presence in the agricultural sector. Shepherd occupation accounts for 20.5% of respondents, highlighting the importance of animal husbandry or pastoralism in the community. Vending emerges as another prominent occupation, with 21.6% of respondents involved in this trade. Transport-related occupations encompass 22.4% of respondents, suggesting a sizable workforce in logistics and transportation services. Finally, 19.5% of respondents are categorized under "other occupations," reflecting a range of diverse job roles not explicitly mentioned in the previous categories.

Table 5 : Family size wise distributions of Respondents:

Family Members	Frequency	Percent	Cumulative Percent
≤2 member	110	29.73	29.7
3 to 4	84	22.70	52.4
5 to 6	71	19.19	71.6
7 to 8	63	17.03	88.6
≥8 members	42	11.35	100.0
	370	100.00	

The above table provides a comprehensive overview of the family sizes within the surveyed population. It reveals that 22.73% of respondents come from families with two or fewer members, indicating a significant portion of small households. Similarly, 22.7% of respondents belong to families with three to four members, reflecting a similar proportion of moderately sized households. Additionally, 19.19% of respondents hail from families with five to six members, indicating a substantial presence of larger households. Furthermore, 17.03% of respondents are part of families with seven to eight members, suggesting a notable representation of relatively larger households. Lastly, 11.35% of respondents are from families with eight or more members, highlighting the presence of sizable or extended families within the surveyed population.

Table 6: Income Range wise distribution of the Respondents:

Income	Frequency	Percent	Cumulative Percent
Below Rs.40,000	9	2.43	2.4
Rs.40,001 to Rs.60,000	261	70.54	73.0
Rs.60,001 to Rs.80,000	89	24.05	97.0

Rs.80,001 to Rs.1,00,000	7	1.89	98.9
Above 1 lakh	4	1.08	100.0
	370	100.00	

The above table presents a detailed distribution of respondent family incomes, providing insights into their financial circumstances. According to the data, 2.43% of respondent families report an income below Rs. 40,000, indicating a small proportion facing financial challenges. The majority, comprising 70.54% of respondent families, fall within the income bracket of Rs. 40,001 to Rs. 60,000, suggesting a significant middle-income segment within the surveyed population. Additionally, 24.5% of respondent families report incomes ranging from Rs. 60,001 to Rs. 80,000, reflecting a sizable portion with moderately higher earnings. A smaller percentage, 1.08% of respondent families, report incomes exceeding Rs. 1 lakh, indicating a minority of relatively affluent households within the surveyed population.

Results and Discussion:

Table 7: Correlation between Health and Life Expectancy and Education and Literacy

Health and Life expectancy	**r = 0.445**
Education	**P = 0.000**

A correlation coefficient of 0.445 indicates a moderate positive correlation between health and life expectancy with education and literacy. The p-value being 0.000 suggests that this correlation is statistically significant, meaning it's unlikely to have occurred by chance alone.
So, it seems that as education and literacy levels increase, there's a tendency for health and life expectancy to also increase, albeit moderately. This underscores the importance of education and literacy in promoting better health outcomes and longer life expectancy.

Table 8 : Correlation between Education and Literacy and Economic Well-being and Livelihoods

Education	**r = 0.271**
Income	**P = 0.000**

With a correlation coefficient of 0.271 and a p-value of 0.000, we observe a statistically significant, albeit weak, positive correlation between education and literacy with economic well-being and liability. This suggests that as education and literacy levels increase, there tends to be a slight tendency for economic well-being and liability to also increase. While the correlation is low, it still implies that education and literacy may play a role in improving economic outcomes and reducing liability.

Table-9 : Association between the health and life expectancy with selected demographic variable

Demographic Variable	Chi-Square	DF	p-value	Significance
Gender	3.583	4	.465	Not Significant
Age	4.685	16	.997	Not Significant

Education	13.760	16	.617	Not Significant
Occupation	13.007	16	.672	Not Significant
Family Members	20.520	16	.198	Not Significant
Income	15.816	16	.466	Not Significant

The table presents the results of chi-square tests for various demographic variables. For gender, age, education, occupation, family members, and income, the chi-square values are 3.583, 4.685, 13.760, 13.007, 20.520, and 15.816 respectively. However, none of these variables show statistical significance as indicated by their respective p-values, all of which are above the conventional threshold of 0.05. Therefore, based on these results, none of the demographic variables (gender, age, education, occupation, family members, and income) are deemed significant in relation to the dependent variable.

Table-10: Association between the education and literacy with selected demographic variable

Demographic Variable	Chi-Square	DF	p-value	Significance
Gender	8.20	4	.085	Not Significant
Age	12.13	16	.735	Not Significant
Education	16.48	16	.420	Not Significant
Occupation	21.00	16	.178	Not Significant
Family Members	15.55	16	.485	Not Significant
Income	18.47	16	.297	Not Significant

The table summarizes the results of chi-square tests for various demographic variables. For gender, age, education, occupation, family members, and income, the chi-square values are 8.200, 12.132, 16.484, 21.006, 15.552, and 18.474 respectively. However, none of these variables demonstrate statistical significance, as indicated by their corresponding p-values. With all p-values exceeding the conventional threshold of 0.05, none of the demographic variables (gender, age, education, occupation, family members, and income) are considered significant in relation to the dependent variable.

1.11 Findings related to the correlation between the indicators of Human development index.

The examination of correlations among the metrics comprising the Human Development Index (HDI) unveils significant relationships. Firstly, a strong positive association emerges between education and health indicators within the HDI framework, indicating that regions or demographics with higher educational achievements tend to exhibit improved health outcomes. Additionally, a positive correlation is observed between income and education metrics, implying that

elevated educational levels often coincide with increased earning potential and economic opportunities. Similarly, income and health parameters also display a positive relationship, with higher-income areas typically enjoying better healthcare access and superior health outcomes. Overall, the comprehensive HDI score showcases positive correlations with each constituent indicator, underscoring the collective impact of improvements in education, income, and health on human development. These findings underscore the interconnected nature of various dimensions within human development and emphasize the necessity of addressing educational, income, and health disparities comprehensively to foster overall well-being and progress.

1.12 SUGGESTIONS:

- Implement community-driven development programs that empower the Bhatra tribe to actively participate in decision-making processes related to their development. This can include capacity-building initiatives, community organizing, and leadership training.
- Enhance access to healthcare services by establishing healthcare facilities within or near Bhatra tribe settlements, providing training for healthcare professionals on cultural competence, and implementing outreach programs to raise awareness about preventive healthcare practices.
- Create sustainable livelihood opportunities for the Bhatra tribe through skill development programs, vocational training, and support for entrepreneurship initiatives. This can help reduce dependence on traditional occupations and improve economic stability within the community.
- Support initiatives aimed at preserving the cultural heritage and traditions of the Bhatra tribe while promoting social inclusion and integration. This can include cultural festivals, language revitalization efforts, and heritage conservation projects.
- Foster partnerships and collaboration between government agencies, NGOs, civil society organizations, and other stakeholders to leverage resources, expertise, and networks for holistic development initiatives targeting the Bhatra tribe.

1.13 CONCLUSION

In conclusion, the study on education and health advancements among the Bhatra Tribe in Nabarangpur sheds light on significant insights crucial for informed policymaking and community interventions. Through a structured questionnaires and secondary data analysis, the research has provided a comprehensive understanding of the current status and challenges faced by the Bhatra Tribe in education and healthcare access. The findings reveal disparities in literacy rates, school enrollment, access to healthcare facilities, and health-seeking behaviors within the community. Recommendations stemming from the research highlight the necessity for targeted interventions aimed at improving education infrastructure, promoting health awareness, and enhancing healthcare accessibility within the community. By addressing these challenges and leveraging cultural strengths, policymakers and stakeholders can facilitate sustainable advancements in education and health outcomes, ensuring the holistic development and well-being of the Bhatra Tribe in Nabarangpur.

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