

Empowering Shores: The Role of Fisherwomen in Socio-Economic Development in the Kanathur to Kovalam Coastal Villages

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Abstract:

Kanathur to Kovalam, the coastal state of Tamil Nadu in India connected fishing industry which has been the primary source for many families' livelihood. While men are very celebrated for their fishing prowess, the participation of women in the growth and development of fishing society economy cannot be overemphasized. Since there are multiple functions that the members of this sex perform in these coastal villages, greater emphasis will be put on the economic, social, and organizational contributions that fisherwomen make to the existence of the community. The background of the study is quick overview in which the author underlines that in Kanathur to Kovalam coastal fishing business most of the owners are male, and the major portion of the fishermen population is male. However, they engage in the post-harvest sector including in marketing, processing and management of money earnings. Fisherwomen contribute a lot and still suffer from marginalization on decision making, poor education, and prejudice base on their gender. Understanding all the complexities of PAs' roles and challenges they face is vital in the attainment of gender parity and enhancement of the overall socio-economic status of the fishing society.

This research uses both quantitative questionnaires and qualitative questionnaires to assess the participants' information. The said research aims to discover and record the Kanathur to Kovalam coastal villages' fisherwomen, their contributions economically, socially and the issues which they have to cope with; and final but not the least possible policy suggestions that can be made for their better future. The quantitative data will be obtained from questionnaires because these are structured and will help obtain the following information; gender, age, occupation, income, level of education and community participation. The 'rich' data will be gathered through semi-structured interviews and focus group discussions in order to explore the major life experiences, struggles, and strategies developed by fisherwomen, as well as their gender roles' attitudes. Descriptive statistics will be employed on quantitative data to describe the frequency, proportion, mean, standard deviation and probabilities to determine association or relationship between the variables.

This study reveals that women are involved in fishing operations especially in post-harvest activities such as fish processing, preservation and marketing. The economic activities that the refugees engage in greatly help in the incomes of the households and the economy. But, the books they produce are not compensated and paid as much as the males in their line of work. After observing the traditional roles that have been assigned to fisherwomen socially, it is evident that are play a central role of ensuring family and even the community cohesiveness. They are usually the ones who are involved in the management of households' finances, provision of food for the family, and social and cultural activities. These active participants in community-based organization, as well as relations with key people and friends in the informal network, improve the entirety of the community and its social capital.

However, the fisherwomen are faced with lots of problems such as Gender Discrimination, limited Education and Training and exclusion from decisions making. These are practices that limit them from carrying out optimal fishing activities or from generally enjoying from the fruits of the industry. Also, they experience the occupational risks and the health problems as a result of the rigorous work they do and poor health services. In order to overcome them, there is a need to design specific measures and reflections aimed at equality between women and men that will help to give proper conditions at work for the fisherwomen.

Keywords: Fisherwomen, education, gender discrimination, challenges, social structure, resilience

Introduction:

It is important to single out the status of fisherwomen for the following reasons. First of all, it removes the focus from the seashore activities indicating that fishing industry involves a variety of economic initiatives. By participating in fish processing and fish marketing fisherwomen contribute impressively to the earnings of the fishing economy besides ensuring that the fishing economy is sustainable. Secondly, through appreciating and respecting them, efficient policies and interferences can be enacted to empower fisherwomen through doing away with gender prejudice and social injustice. Thirdly, when the educational and socio-economic status of fisherwomen are elevated, community welfare and sustainability will be boosted, to make sure that development advantages will not be concentrated in some particular folks. Thus, this research establishes that fisherwomen are significant players towards the socio-economic upliftment of Kanathur to Kovalam coastal villages. In this way the difficulties women encounter can be looked at, broken down, and the opportunity for a better fishing industry for all can begin to be realized. Applying intricate interventions and policies, it is possible to strengthen fisherwomen and their performances, thus the general improvement of the living standards of communities depending on fishing activities. This study should therefore be underpinned by a holistic model of development where sustainable education, gender, health and community support will act as the framework for nurturing the fishing community.

To support and empower fisherwomen, the following interventions are recommended: To support and empower fisherwomen, the following interventions are recommended:

Educational and Training Programs: Initiate programs that will give fisherwomen opportunity to get to school and acquire better job skills. These program should relate to the needs of fisherwomen and the tasks they perform within the framework of the fishing industry.

Gender Equity Policies: Encourage pay equity for men and women involvement of women and non discrimination of women in the fishing industry. These policies should be in a position to deal with factors that have enabled and made it possible for the male dominated fishing sectors to exclude fisherwomen.

Healthcare Services: Availability and utilization of proper health care that targets fisherwomen concerning occupational health and safety. They also involve routine medical examination, treatment of ailments arisen from work, and health education to the fisherwomen.

Community Support Initiatives: Many fisherwomen – particularly low-income fisherwomen – say that they would be helped if there were stronger local organisations and support networks where they could go to get information, help or advice, to learn and to take on leadership and management roles. These initiatives should therefore target strengthening the knowledge and the role of the fisherwomen in fighting for their rights and for the increased participation in community problems solving.

Literature review:

Post-Harvest Activities:

A study by Sathiadhas and Narayanakumar (2000) emphasizes the significant economic contributions of fisherwomen through post-harvest activities. The research highlights that women are primarily responsible for cleaning, drying, and selling fish, which are critical processes that ensure the fish reach the market in good condition. These activities, though labor-intensive, are often undervalued and underpaid compared to the work of their male counterparts.

Income Generation

According to Kurien and Paul (2001), fisherwomen's involvement in marketing fish helps in securing better prices due to their negotiation skills and established customer relationships. This not only increases household income but also ensures a steady cash flow, which is vital for the economic stability of fishing families.

Household Management

Jentoft and Chuenpagdee (2015) discuss the pivotal role of fisherwomen in managing household finances. They argue that women's financial management skills are crucial for ensuring family welfare and stability, particularly in the face of economic uncertainties common in fishing communities.

Community Participation

Frangoudes and Pascual-Fernández (2015) highlight the active participation of fisherwomen in community-based organizations. These organizations often focus on improving local fisheries management, advocating for better working conditions, and promoting sustainable fishing practices. Women's involvement in these groups enhances community resilience and ensures that their voices are included in decision-making processes.

Gender Discrimination

According to Harper et al. (2013), gender discrimination remains a pervasive issue in many fishing communities. Women are often excluded from decision-making roles and leadership positions, limiting their ability to influence policies and practices that affect their lives and livelihoods.

Limited Access to Education

Béné et al. (2007) point out that limited access to education and training opportunities restricts fisherwomen's ability to improve their skills and economic prospects. Education is crucial for understanding new technologies, better management practices, and sustainable fishing methods, which are essential for adapting to changing environmental and economic conditions.

Objectives of the research study:

The primary objectives of this study are: The primary objectives of this study are:

1. This study was aimed at documenting the specific functions of the fisherwomen belonging to the Kanathur to Kovalam coastal villages.
2. To evaluate the role of fisherwomen in income generating hence the contribution to the fishing business and the economy.
3. As a way of identifying social contribution of fisherwomen beginning with an assessment on their roles in the family and the larger society.
4. To analyse the problem in question and, in particular, be aware of the issues faced by fisherwomen regarding gender prejudices and schooling.
5. In particular, for suggesting the changes in the policy and community programmes that would benefit fisherwomen and empower them.

Hypothesis of the research study: Hypothesis of the research study:

1. Hypothesis on Economic Contributions:

Null Hypothesis (H₀): Women of the fisher folk in the coastal villages of Kanathur to Kovalam are not economically contributing much to the largely fishing base economy through post harvesting activities.

Alternative Hypothesis (H1): Outcome 3: Fisherwomen of the Kanathur to Kovalam coastal villages play post-harvest activities for the economic contribution.

2. Hypothesis on Social Cohesion and Community Resilience: Hypothesis on Social Cohesion and Community Resilience:

Null Hypothesis (H0): The conditions that differentiate fisherwomen from other members of fishing villages are not related to their role in sustaining social fabric and stability of the communities' resilience.

Alternative Hypothesis (H1): The Fisherwomen are very important assets of the fishing villages' society and they ensure social cohesiveness and community stability.

3. Hypothesis on Challenges Faced by Fisherwomen: Hypothesis on Challenges Faced by Fisherwomen:

Null Hypothesis (H0): There are very few barriers to the socio-economic development of these fisherwomen such as Gender Discrimination and restricted education.

Alternative Hypothesis (H1): These fisherwomen often experience forms of discrimination particularly on the basis of gender, and education which affects their socio-economic mobility significantly.

4. Hypothesis on the Impact of Empowerment Interventions: Hypothesis on the Impact of Empowerment Interventions:

Null Hypothesis (H0): Hence, although efforts to educate and train fisherwomen toward their socio-economic development will not enhance their and their communities' welfare.

Alternative Hypothesis (H1): Fisher women shall be empowered through initiative measures like education and vocational training hence improve on their socio-economic wellbeing and of the societies they belong to.

Background of Kanathur to Kovalam:

The East Coast Road or ECR is namelessly one of the most beautiful drives linking the two cities of Chennai and Pondicherry. The first fishermen village situated after the toll gate is Kanathur Reddykuppam, which is a part of the Thiruporur Block in the Southern Indian state of Tamil Nadu within the district of Chengalpattu. The Reddykuppam Village was as per the 2011 census having a total of 99 numbers of households and a population of 396. The literacy level of the village, according to the same census, stands at 71.5%, the quantity of woman populace is 50% and the feminine literacy rate is 31% only. 8%. While the other residents of the area are mainly people who relocated to this area due to the growth of sales centers along the major roads, the fishermen colony natives are involved in fishing only. Despite a slightly increase in young generations, educational achievements are still not sufficient to let them read newspapers and visit web-sites to get new to improve their lives..

Data interpretation & Result interpretation:

The data collected in this study entails perceptions of fishermen. It uses descriptive research type and secures primary data. For this reason, a self-developed structured questionnaire with the help of the Likert scale including the answers 'Strongly disagree' (1) and 'Strongly agree' (5) was developed. The sample size for this study is 150 and the type of sampling employed in this study is quota sampling.

Result interpretation:

Descriptive Statistics for the Study:

The research study also involved qualitative data analysis. In the following section, the following descriptive statistics will highlight and present the data collected for the research study on the socio-economic development of fisherwomen of the Kanathur to Kovalam coastal villages. These statistics may comprise of average, variance and frequency of each purposeful variable of concern.

Data Collected

Total Data Collected: 250+

Valid Data Sheets Considered for Analysis: 150 responses. As a fast way to give specific inferences and analyses on those variables, it is pertinent to explain the meaning of each of the different variables (d1,d2,d3,d4) in the context of this study. The general and very broad concepts may not be appropriately reflected in the inferences hence the insights may not be well captured in the research. Though I cannot provide you specific information regarding the given setting because actually I have not encountered this type of socio-economic study of fisherwomen, I can give you some general ideas based on the motifs which emerge frequently in socio-economic study of fisherwomen. Let's assume the following potential definitions: Let's assume the following potential definitions:

d1-Economic contributions

d2- Social solidarity as well as collective jerry building

d3-challenges faced by fisherwomen

d4: Outcome of empowerment treatments

d1: Economic Contributions

- Reflects the extent to which fisherwomen support their and other locals' income by working in fishing and post harvest jobs.

d2 social solidarity and totemic strength of the community.

- Assesses women fished contribution to the fishing society cohesiveness in the fishing communities.

d3: Problems of Fisherwomen

- Which shows the level of hardship fisherwomen experience such as discrimination on the basis of gender or they lack proper education that would improve their socio-economic status.

d 4:Empowerment interventions on the target group

- Exploring the effectiveness of directed efforts like awareness creation, enterprise training, amongst others on the living standards of the fisherwomen and their society.

Frequency Analysis Table

		d1	d2	d3	d4
N	Valid	150	150	150	150
	Missing	0	0	0	0
Mean		3.27	3.06	3.53	2.03
Std. Deviation		1.336	.978	1.299	1.129

Interpretation of Descriptive Statistics

Economic Contributions (d1):

Mean: 3.27

Standard Deviation: 1.336

The mean score of 3.27 indicates that the fishermen perceive their economic contributions as moderately significant. The standard deviation of 1.336 suggests a relatively wide range of responses, indicating differing views on the extent of their

economic contributions. This variation could stem from differences in income levels, types of fishing activities, and the economic impact of their work on their households and communities.

Social Cohesion and Community Resilience (d2):

Mean: 3.06

Standard Deviation: 0.978

The mean score of 3.06 indicates that fishermen moderately agree that there is social cohesion and community resilience within their communities. The standard deviation of 0.978, which is lower than that of economic contributions, suggests less variability in responses. This indicates a more uniform perception among fishermen about the social structure and collective resilience of their communities.

Challenges Faced by Fisherwomen (d3)

Mean: 3.53

Standard Deviation: 1.299

The mean score of 3.53 indicates a higher awareness and acknowledgment of the challenges faced by fisherwomen within the community. The standard deviation of 1.299 points to significant variability in responses. This could be due to different levels of interaction with fisherwomen, varying perceptions of gender roles, and the visibility of these challenges in daily life.

Impact of Empowerment Interventions (d4)

Mean: 2.03

Standard Deviation: 1.129

The mean score of 2.03 suggests a lower perceived impact of empowerment interventions among the fishermen. The standard deviation of 1.129 indicates a moderate spread in responses, showing that while some fishermen may see the positive impacts of these interventions, others might not have observed significant changes. This could highlight the need for more effective or better-communicated empowerment initiatives.

Overall Implications

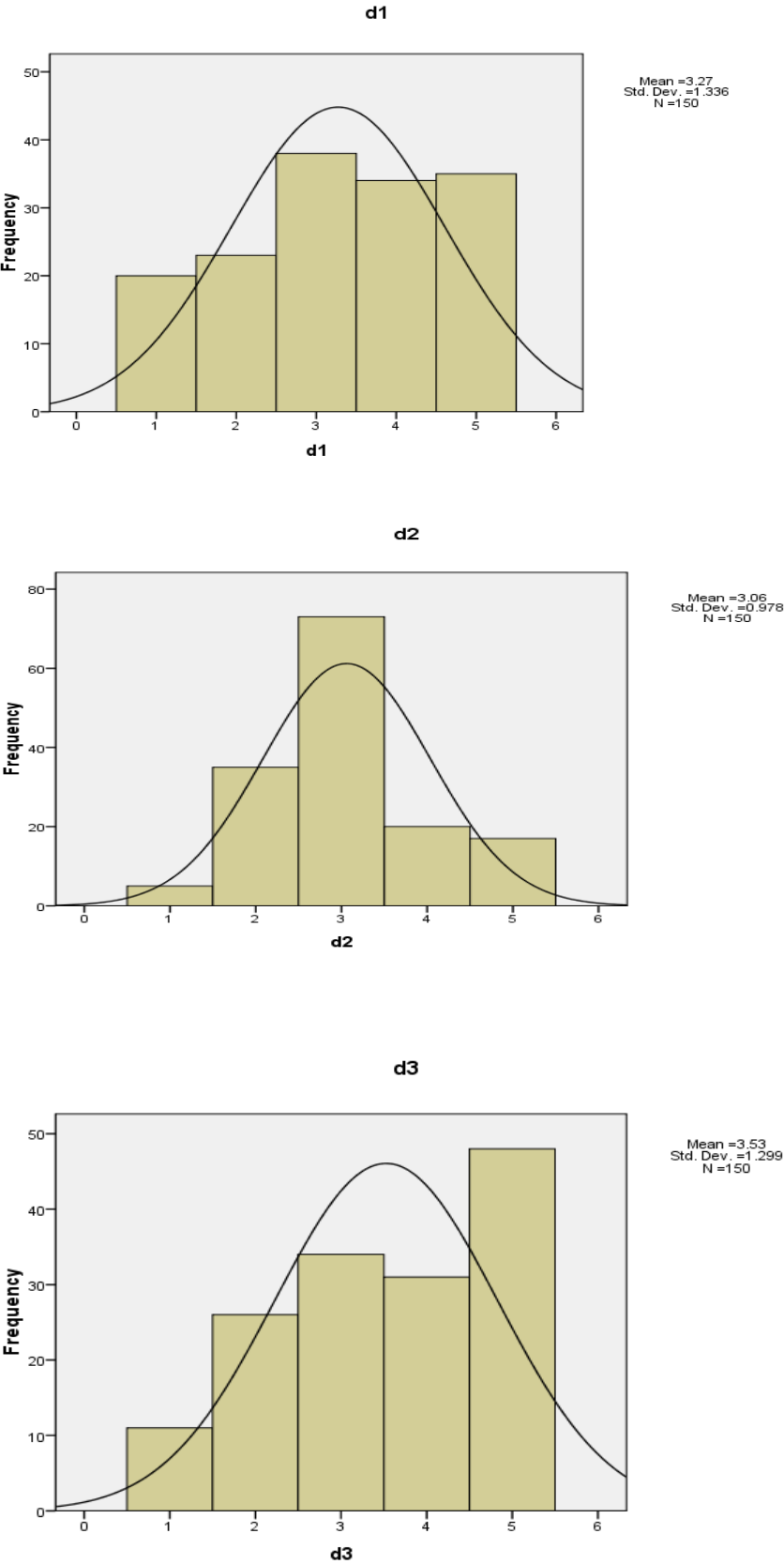
Economic Contributions: The moderately high mean score suggests that the economic contributions of fishermen are valued but also highlights the disparities within the community. Interventions aimed at improving economic stability and growth could help bridge this gap.

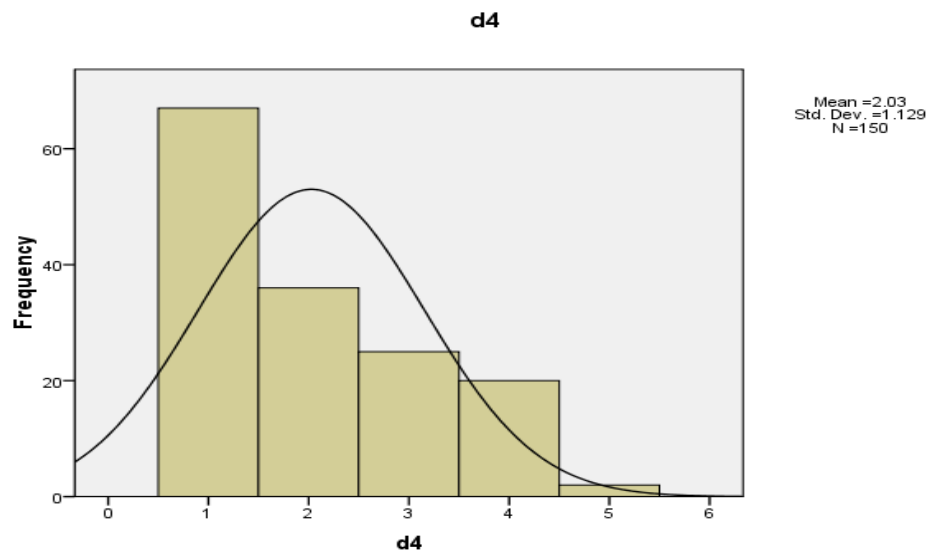
Social Cohesion and Community Resilience: The consistent perceptions of social cohesion suggest a strong sense of community. Strengthening these bonds through community-driven programs could further enhance resilience.

Challenges Faced by Fisherwomen: The high mean score for challenges faced by fisherwomen indicates a significant area of concern. Addressing these challenges through targeted interventions could improve the overall well-being of the community.

Impact of Empowerment Interventions: The low mean score indicates that current empowerment interventions may not be reaching their full potential. Evaluating and redesigning these programs to better meet the needs of the community could lead to more substantial and noticeable impacts.

Histogram

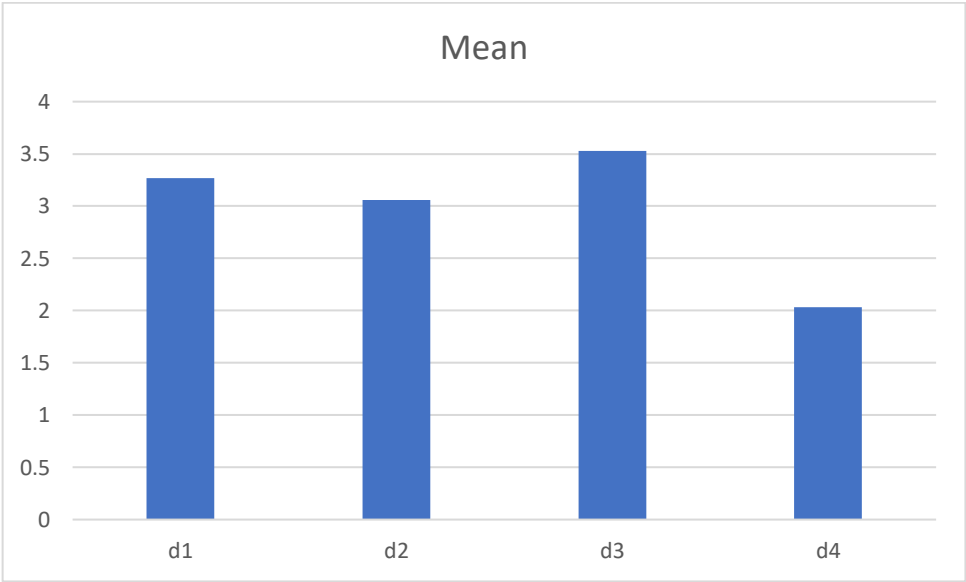




Descriptive Analysis

Descriptive Statistics

	N	Mean	Std. Deviation
d1	150	3.27	1.336
d2	150	3.06	.978
d3	150	3.53	1.299
d4	150	2.03	1.129
Valid N (listwise)	150		



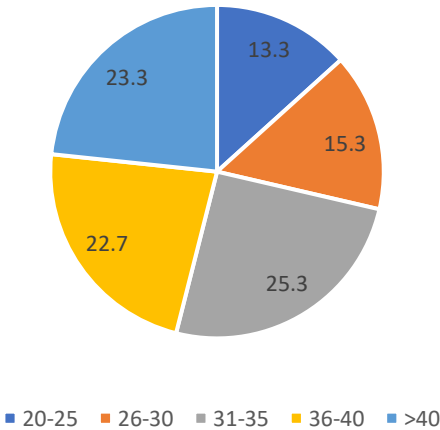
Frequency Table for Age category.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-25	20	13.3	13.3	13.3
	26-30	23	15.3	15.3	28.7
	31-35	38	25.3	25.3	54.0
	36-40	34	22.7	22.7	76.7
	>40	35	23.3	23.3	100.0
	Total	150	100.0	100.0	

Inference: From the above table, it can be inferred that 25.3% of the respondents were from age group of 31-35. This is followed by age group of more than 40 around 23.3% and age group of 36-40 around 22.7% which shows that many fishermen belongs to the middle age sector who are productive in fishing community.

Age Frequency

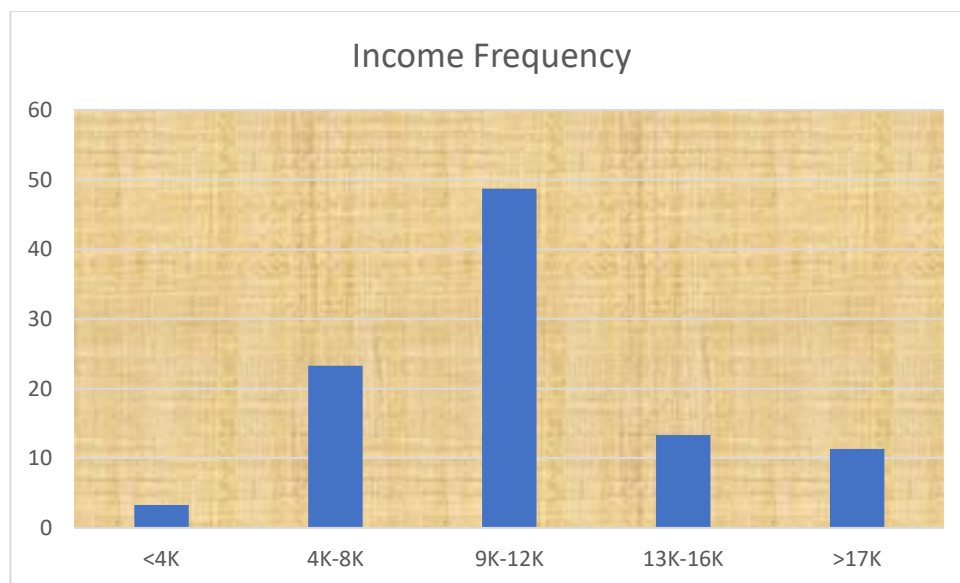


Frequency Table for Income category.

Income Frequency Table

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<4K	5	3.3	3.3	3.3
	4K-8K	35	23.3	23.3	26.7
	9K-12K	73	48.7	48.7	75.3
	13K-16K	20	13.3	13.3	88.7
	>17K	17	11.3	11.3	100.0
	Total	150	100.0	100.0	

Inference: From the above table, it can be inferred that 48.7% of the respondents were from Income group of Rs.9000 to Rs12000.



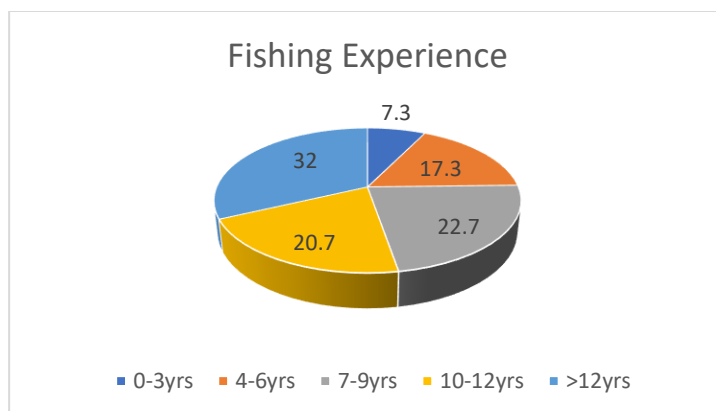
This is followed by Income group of more than Rs.4000 to Rs.8000 around 23.3% and Income group of Rs.13000 to Rs.16000 around 13.3% which shows that many fishermen earnings are around Rs.1000 per month which is lower than the normal need for life in Urban areas.

Frequency Table for Fishing Experience category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-3yrs	11	7.3	7.3	7.3
	4-6yrs	26	17.3	17.3	24.7
	7-9yrs	34	22.7	22.7	47.3
	10-12yrs	31	20.7	20.7	68.0
	>12yrs	48	32.0	32.0	100.0
	Total	150	100.0	100.0	

Inference: From the above table, it comes to know that 32% of the respondents have more than 12 years of experience which derives the fact that the data collected is realistic and genuine which adds confidence in accepting their suggestion for the improvement.

This is then succeeded by people who have 7 to 9 years of experience hold approximately 22 percent of the market share. 7% and people who having 10-12 years are 20. 7% which states that relatively higher percentage of the fishermen with 10 years of experience was prevailed which will be valuable for our project to obtain useful suggestions to enhance that specific community.



Frequency Table for Educational Qualification category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<10th	67	44.7	44.7	44.7
	10 th Std	36	24.0	24.0	68.7
	12 th Std	25	16.7	16.7	85.3
	UG	20	13.3	13.3	98.7
	PG	2	1.3	1.3	100.0
	Total	150	100.0	100.0	

Suggestions of the Study:

Economic Enhancement Programs:

Microfinance and Credit Facilities: Ensuring the fishermen get access to microfinance and credit facilities that would enhance the investment on better fishing equipment and technology so as to enhance catch rates and earnings.

Market Access and Training: Develop and introduce to the fishermen such training activities as financial literacy, market access that would allow them to get a better price for their products, and other related topics.

Social Cohesion and Community Resilience:

Community Support Groups: There should be official working groups for parents in the community so that they can be able to come together and share their experience, problem and achieve solutions.

Cooperative Societies: Encourage the establishment of societies that will assist people to form groups with bargaining powers, share resources and assist each other in case of any problems encountered.

Addressing Gender-Specific Challenges:

Empowerment of Fisherwomen: Tailor made individual skills and rights protection to fisherwomen need to be established by formulating vocational, financial and educational programs which will be helpful for those women who are really motivated to work in the fishing sector.

Awareness and Advocacy: Use advocacy campaigns that would result in awakenings on the plights of the fisherwomen and engage the communities into embracing gender diversity.

Effective Empowerment Interventions:

Needs Assessment and Feedback Mechanisms: Ensure the needs of the people in the community are met through regular needs assessments and activism feedback channels for the empowerment programs.

Community Involvement in Program Design: Engage people from the community in the development of exercises of empowerments, to cater for their cultural practices and for the demands of the fishermen.

Health and Well-being Initiatives:

Mental Health Support: Counseling services for the fishermen should be offered considering the fact that this line of work is laden with psychosocial stressors and stress management workshops should be provided.

Health Camps and Insurance: It is also necessary to arrange delivery of primary health-care services with the help of organizing regular health camps and affordable health insurance schemes.

Educational and Training Programs:

Skill Development: Extend education and learning opportunities that aim at areas like the latest fishing methods and techniques, navigating equipment, and methods of sustainable fishing so as to boost efficiency as well as safety.

Educational Support for Children: This proposal is aimed at offering education facilities to the children of fishermen so as to give them a opportunity of a better future with out having to be in a cycle of poor living.

Infrastructure Development:

Improved Fishing Facilities: Work on improving the available fishing infrastructure like cool temperatures, fish processing plants, and clean fish markets to improve the fishing results and revenues.

Safety and Communication Systems: Strengthen components that relate to safety and communication like the supply of G. P. S. gadgets and well-established communication channels to guarantee the security of fishermen at sea.

Government and Policy Support:

Policy Advocacy: Push for measures in the firms' favour especially subsidies for fishing gears, fuel and other necessities.

Government Assistance Programs: The right of the fishermen; Oversee that the Handicapped programs are available to, and delivering the requires help to the fishermen.

Environmental and Sustainability Initiatives:

Sustainable Fishing Practices: Support sustainable fishing for there efficiency through informing and enforcing the fishing statutes with a purpose of making the fishing industry sustainable and the marine habitat.

Conservation Programs: Get fishermen involved in environmental conservation initiatives that will help in the sustainment of the coastal and marine environment for fishing activities.

Through the adoption of these suggestions, Chettikadu fisheries' workers, especially the fishermen in the Kanathur to Kovalam coastal area will be able to have better quality of work life; thus enhancing their economic prosperity and social interaction. Such interventions should be implemented through the involvement of the community members as a way of considering their needs when implementing the interventions.

Conclusion:

This themed research study aims to assess the Kanathur to Kovalam coastal fishermen's quality of work life concerning the psychosocial impact and stress dynamics. From the findings, the following aspects of their lives are pointed out as very significant: their economic productivity, their integration into the society, the issues facing the fisherwomen, and the effects of micro- empowerment programmes. Key Findings: Economic Impacts: As for the economic aspects, the results suggest that fishermen estimate their impact for this aspect to be of medium importance, but on this score, too, large differences are detected. This, therefore, necessitates the necessity of specific economic development improvement programs in order to transform existing gaps and financially strengthen the clients. Social Cohesion and Community Resilience: Fishermen generally get the impression of a good social solidarity which translates to resilience of the society. As such, the mutual perception of these cultures indicates the potential for social structures that would facilitate

mutual aid and the strengthening of communities through the implementation of programs that are initiated from within the community. Challenges Faced by Fisherwomen: It is evident that the most striking awareness of the difficulties of fisherwomen is a major issue to be noted. It therefore becomes paramount to design interventions for these gender specific needs in order to improve the working and living conditions of women in the fishing industry. Impact of Empowerment Interventions: The low perceived impact of empowerment interventions implies that the current empowerment programs that are being run do not meet the community needs sufficiently. Thus, it can be concluded that there is a recognized necessity to reconsider and redesign these programs as they should remain essential, efficient, and properly advertised.

Implications for Policy and Practice

The study's findings have important implications for policy and practice: The study's findings have important implications for policy and practice:

1. Economic Enhancement:

Micro-finance for loans, credit facilities and training on market accesses are some of the ways through which the economic returns by the fishermen must be boosted. Some of these initiatives include; they can assist the fishermen in acquiring better equipment to use in fishing, and can ensure that fishermen and women get better prices for their products.

2. Community Support:

Formation of communities support groups and cooperative societies contributes to the matters of social solidity and people's enduring result since people can share experiences and solutions.

3. Gender-Specific Programs:

Thus, increasing the fished women's leverage through vocational training, microcredit, and education can mitigate the concerns and enhance the role of the female fisherfolk in the fishing sector.

4. Effective Empowerment Interventions:

For this reason, it is critical to involve the clients in designing and implementing the programmes to avoid cases of developing programmes that are not effective in empowering the targeted individuals. Other recommended activities include need assessments that are conducted in a regular basis as well as feedback.

5. Health and Well-being Initiatives:

The concept of mental health support, health camps, and cheap or free health insurance also uphold the health quality and standard of fishermen.

6. Educational and Training Programs:

The productivity could be improved by providing skill development programmes and educational support for children which in turn can hold better opportunities for the future generation.

7. Infrastructure Development:

Upgrading fishing facilities and safety and communication can explain why the fishing industry is efficient, more profitable, and safer.

8. Government and Policy Support:

Promoting the favorable policies and guaranteeing the accesses to the governmental assistance are the essential elements which might help the fishing communities to continue their existence.

9. Environmental and Sustainability Initiatives:

Conserving the fishing resources and involving the fishermen in sustainable natural resource management activities can help to maintain the fishing activities and the marine environment.

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