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A Study On The Level Of Social Support For Family Members Of Cancer Patients Based On Gender In Alappuzha District, Kerala

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Abstract: *The study explores social support perceived by 204 family members of cancer patients, selected using purposive sampling technique from the study area. Data was collected through a structured interview schedule with a 5-point Likert scale. Statistical analyses including K-means clustering, t-tests, and One-Way ANOVA were employed to examine variations in social support across demographic factors. Results reveal that 22.73% of respondents experienced high social support (Mean=4.13), while 59.09% reported moderate (Mean=3.66) and 18.18% low support (Mean=2.80). Informal support (Mean=3.80) was perceived more strongly than formal support (Mean=3.41), though the difference was marginally insignificant (t=2.04, p=0.058). Significant differences in social support were found by age (F=3.284, p=0.012), relationship to patient (F=3.214, p=0.024), marital status (F=2.764, p=0.029), education (F=3.162, p=0.014), occupation (F=2.487, p=0.036), and income (F=3.215, p=0.024). For example, those aged 56–70 (Mean=3.93) and government employees (Mean=4.01) reported higher support. Gender, family type, residence, religion, and caste showed no significant differences. The study highlights the importance of demographic factors in shaping social support for caregivers, suggesting tailored interventions to enhance caregiving experiences.*

Keywords: *Social Support, Cancer Caregivers, Demographic Factors, Informal Support*

INTRODUCTION

Cancer remains one of the most significant public health challenges worldwide, not only affecting patients but also profoundly impacting their family members. According to the World Health Organization (WHO, 2022), cancer is the second leading cause of death globally, accounting for nearly 10 million deaths in 2020. Beyond the immediate physical and emotional toll on patients, the diagnosis of cancer disrupts family structures, affecting emotional well-being, financial stability, and overall quality of life for caregivers and family members. As family members often assume caregiving roles, they experience heightened levels of psychological distress, anxiety, and social isolation (Kim et al., 2020). In this context, social support has emerged as a crucial buffer that can significantly alleviate the emotional and physical burden on caregivers.Social support refers to the perception and actuality of being cared for, having assistance available from others, and being part of a supportive social network (Thoits, 2011). It encompasses various forms, including emotional, informational, instrumental, and appraisal support. Research has shown that strong social support networks improve the psychological well-being of caregivers and contribute to better coping mechanisms and resilience (Northouse et al., 2012). In high-income countries, structured systems such as support groups, palliative care teams, and social services provide organized support to caregivers. However, in low- and middle-income countries, including India, such systems are often underdeveloped, placing more responsibility on informal caregiving within families.In the Indian context, the burden of caregiving typically falls on immediate family members due to cultural expectations and limited institutional support (Sankaranarayanan et al., 2019). India faces a rising cancer burden, with over 1.4 million new cases reported in 2020 (GLOBOCAN, 2021). Cancer treatment in India is often prolonged, expensive, and centralized in urban areas, leading to considerable strain on family caregivers in terms of time, finances, and emotional energy. A study by Roy and Varghese (2018) highlighted that caregivers of cancer patients in India experience high levels of stress and require

multifaceted support systems to manage their responsibilities effectively.Kerala, one of India's most literate and health-conscious states, presents a unique landscape for cancer care. The state has a relatively well-developed healthcare infrastructure and a higher level of health awareness among the population (Kerala State Planning Board, 2020). However, despite these advancements, families in Kerala still encounter emotional and financial challenges while caring for cancer patients. Research conducted in regional cancer centers in Kerala shows that caregivers often report a lack of adequate social support, which affects their coping strategies and mental health (George & Thomas, 2020). The sociocultural setting in Kerala, with its strong family ties and community orientation, provides an interesting context to explore how formal and informal support systems function in the caregiving landscape.Given the above backdrop, assessing the level of social support received by family members of cancer patients is crucial. The study aims to bridge the knowledge gap by investigating the types and adequacy of social support in Alappuzha District, Kerala. Understanding these dynamics can help policymakers and healthcare providers design targeted interventions to strengthen caregiver support systems in the region.

REVIEW OF LITERATURE

The review of literature is crucial as it provides a comprehensive understanding of existing research, identifies gaps, and establishes the theoretical foundation for the study. It helps contextualize the current research, guiding the formulation of objectives and methodology while ensuring the study contributes meaningfully to the existing body of knowledge. Globally, numerous studies have emphasized the significance of social support in alleviating the burden experienced by family members of cancer patients. Kim et al. (2020) found that caregivers who received emotional and instrumental support showed lower levels of psychological distress and greater resilience. Similarly, Northouse et al. (2012), in a meta-analysis of interventions with family caregivers, emphasized that structured support significantly improved caregivers' coping abilities and mental well-being. Another study by Applebaum and Breitbart (2013) reported that lack of social support increases the risk of depression and burnout among caregivers of advanced cancer patients. According to Ferrell and Wittenberg (2017), family members often serve as surrogate decision-makers and emotional pillars, and inadequate support networks can hinder both their caregiving efficacy and their quality of life. These findings underline the universal relevance of support systems, regardless of socio-cultural backgrounds.In the Indian context, the caregiving role is heavily influenced by family-centered cultural norms, often resulting in substantial emotional and economic strain. Roy and Varghese (2018) investigated the psychological impact and perceived support among caregivers and revealed that over 65% experienced high emotional burden with minimal formal support mechanisms. Sankaranarayanan et al. (2019) emphasized the lack of comprehensive caregiver support in Indian oncology settings, particularly in rural and semi-urban areas, making informal support crucial. Another study by Chattopadhyay and Chattopadhyay (2017) revealed that caregivers often lack access to information, emotional outlets, and community services, highlighting the need for targeted interventions. Joseph et al. (2016) conducted a cross-sectional study across multiple Indian hospitals and noted that families felt isolated and stigmatized, and about 70% relied solely on family and friends for assistance. These findings suggest a gap in formal social support systems despite the increasing burden on caregivers.In Kerala, a state known for its progressive health indicators, caregiving still presents notable challenges. A study by George and Thomas (2020) reported that caregivers in regional cancer centers experienced high stress, with limited institutional support despite Kerala's relatively advanced health infrastructure. Rani and Devassy (2019) found that emotional and community support significantly reduced anxiety and improved caregiver confidence, particularly in palliative care settings. Mathew and Kurian (2021) studied social support among caregivers in Alappuzha and revealed that though informal support from extended family and neighbors is prevalent, access to structured social work and counseling is limited. Also, Varghese and Radhakrishnan (2018) identified economic dependency and social stigma as critical barriers to seeking external help. These localized studies provide critical insight into the need for context-specific interventions aimed at enhancing social support for caregivers in Kerala.

Objectives

1. To assess the level of social support received by family members of cancer patients.
2. To provide suitable suggestions for enhancing social support systems for family members of cancer patients based on the study findings.

Hypothesis

1. There is a significant difference in the level of social support received by family members of cancer patients.

Research Methodology

The present study employed a descriptive research design to assess the level of social support received by family members of cancer patients in Kuttanad Taluk, Alappuzha district, Kerala. Primary data were collected directly from 204 caregivers through structured interviews conducted at healthcare institutions and during home visits. An interview schedule with a 5-point Likert scale was used to measure dimensions of social support such as emotional, informational, and instrumental support. Secondary data were gathered from published research papers, books, newspapers, magazines, government health reports, and census data to provide background context and support the primary findings. The study applied descriptive statistics such as mean, percentage, and standard deviation for basic analysis, while inferential techniques like K-means cluster analysis were used to classify respondents based on levels of perceived support. Independent sample t-tests were used to examine gender-based differences in perceived support, and One-Way ANOVA helped explore differences across various socio-demographic categories, such as age, relationship to patient, marital status, education, occupation, and monthly family income, gender, family type, residence, religion, and caste. The mixed-method statistical approach provided a comprehensive and data-driven understanding of the support systems available to cancer patients' families in the region.

Sampling Design

The present study was conducted in Kuttanad Taluk of Alappuzha district, Kerala, chosen purposively due to its high cancer prevalence. According to the Kerala Health Department, 36,436 individuals were screened for cancer in Kuttanad under a public health initiative (The Hindu, March 2025). Among Alappuzha's six taluks: Cherthala, Ambalappuzha, Kuttanad, Karthikappally, Chengannur, and Mavelikkara—Kuttanad was selected based on epidemiological data. The 2010 Kainakary Panchayat Survey revealed a cancer prevalence of 6.3 per 1,000 persons, and Veliyanad Block data (2018) reported 286 cases across six panchayats, with Pulinkunnu alone recording 73 (The Hindu, 2010; Maps of India, 2018).All government healthcare institutions offering cancer care in Kuttanad were included: CHC Veliyanad (38 patients), CHC Edathua (56), PHC Kainakary (83), PHC Ramankary (64), PHC Muttar (39), PHC Neelamperoor (70), and Taluk Headquarters Hospital, Pulinkunnu (54), totaling 404 patients. After accounting for 13 deaths, 204 caregivers were selected using simple random sampling. Interviews were conducted both in healthcare facilities and during home visits, depending on availability and consent. A near-equal gender distribution among caregivers (50.49% male, 49.51% female) was maintained, ensuring representativeness and ethical adherence throughout the sampling process.

Analysis And Interpretation

Table: 1. Descriptive Statistical Analysis of Social Support Perceived by Family Members of Cancer Patients in the Study Area

S. No.	Statement	Mean	SD	N
	Formal Social Support			
1.	I receive emotional support from my family members.	4.20	0.98	204
2.	My friends help me cope with the stress of caregiving.	3.68	1.19	204
3.	Relatives assist me with daily household chores.	3.45	1.26	204
4.	I can talk freely about my concerns with people close to me.	4.19	0.99	204
5.	I feel socially connected because of the support from my loved ones.	4.17	1.00	204

6.	Friends or neighbors help me take the patient to hospital appointments.	3.30	1.30	204
7.	I have someone in my social circle who regularly checks on my wellbeing.	3.90	1.11	204
8.	I feel less isolated because of support from people I know.	3.99	1.09	204
9.	Other family members share caregiving responsibilities with me.	3.81	1.14	204
10.	I receive valuable advice and guidance from people who have experienced similar situations.	3.53	1.20	204
11.	My religious or community group provides moral support during the time.	3.56	1.21	204
	Formal Social Support			
12.	Hospital staff are available to answer my questions and concerns.	3.97	1.08	204
13.	I receive helpful information from healthcare professionals about the patient's treatment.	4.07	1.03	204
14.	I have received financial or logistical support from the government or NGOs.	2.84	1.41	204
15.	I have access to counseling services for emotional support.	2.50	1.45	204
16.	I know where to go for professional help in times of crisis.	3.75	1.15	204
17.	I receive updates and instructions from doctors or nurses regarding the patient's care.	3.97	1.12	204
18.	Social workers have contacted me about support programs and resources.	2.94	1.33	204
19.	I have been provided information about support groups and patient networks.	3.16	1.30	204
20.	Formal support systems make me feel more confident in managing the patient's needs.	3.76	1.15	204
21.	I receive adequate guidance on navigating the healthcare system.	3.61	1.22	204
22.	I have access to formal caregiver training or education if I need it.	2.92	1.35	204

The descriptive analysis comprises a total of 22 statements, each rated on a 5-point Likert scale, where 1 indicates strong disagreement and 5 indicates strong agreement. The highest mean value recorded is 4.20 (indicating strong agreement with receiving emotional support from family members), while the lowest mean value is 2.50 (reflecting limited access to counseling services for emotional support). The standard deviation (SD) ranges from 0.98 to 1.45, signifying varying levels of agreement and consistency in responses across different items.The table presents a detailed overview of both informal and formal sources of social support perceived by the family members of cancer patients. At the top of the ranking, respondents most strongly agreed with the statement, "I receive emotional support from my family members" (Mean = 4.20, SD = 0.98). Followed by, "I can talk freely about my concerns with people close to me" (M = 4.19, SD = 0.99), and "I feel socially connected because of the support from my loved ones" (M = 4.17, SD = 1.00). These findings indicate that family-based emotional support is a crucial coping resource during caregiving.Other statements such as, "I receive helpful information from healthcare professionals about the patient's treatment" (M = 4.07), "I receive updates and instructions from doctors or nurses regarding the patient's care" (M = 3.97), and "Hospital staff are available to answer my questions and concerns" (M = 3.97) highlight the importance of professional support. Also ranked high were, "I feel less isolated because of support from people I know" (M = 3.99), "I have someone in my social circle who regularly checks on my wellbeing" (M = 3.90), and "Other family members share caregiving responsibilities

with me" (M = 3.81).Moderate agreement was found for, "Formal support systems make me feel more confident in managing the patient's needs" (M = 3.76), "I know where to go for professional help in times of crisis" (M = 3.75), and "I receive adequate guidance on navigating the healthcare system" (M = 3.61). Lower mean values were noted for, "My religious or community group provides moral support during the time" (M = 3.56), "I receive valuable advice and guidance from people who have experienced similar situations" (M = 3.53), "My friends help me cope with the stress of caregiving" (M = 3.68), and "Relatives assist me with daily household chores" (M = 3.45).The least agreement was expressed for, "Friends or neighbors help me take the patient to hospital appointments" (M = 3.30), "I have been provided information about support groups and patient networks" (M = 3.16), "Social workers have contacted me about support programs and resources" (M = 2.94), "I have access to formal caregiver training or education if I need it" (M = 2.92), "I have received financial or logistical support from the government or NGOs" (M = 2.84), and the lowest ranked, "I have access to counseling services for emotional support" (M = 2.50), indicating significant gaps in formal institutional support.

Table: 2: Cluster Analysis of Social Support Perceived by Family Members of Cancer Patients

Level of Social Support	**No. of Statements**	**Mean Value**	**Percentage (%)**
High Social Support	5	4.13	22.73%
Moderate Social Support	13	3.66	59.09%
Low Social Support	4	2.80	18.18%
Total	**22**	**3.59**	**100.0**

The K-mean cluster analysis categorized social support into three levels: high, moderate, and low. Out of 22 statements, 5 statements (22.73%) fell under high social support with a mean value of 4.13, indicating strong perceived support. The majority, 13 statements (59.09%), were grouped as moderate social support, with a mean of 3.66, reflecting a satisfactory but variable support level. Lastly, 4 statements (18.18%) represented low social support with a mean of 2.80, highlighting areas needing improvement.

Table: 3. T-Test Analysis of Formal and Informal Social Support Perceived by Family Members of Cancer Patients

	Type of Social Support	**No. of Statements**	**Mean**	**SD**	**T-Test Value**	**P-Value**
	Informal Support	11	3.80	0.32		
Formal Support	11	3.41	0.55	2.04	0.058	

Table 3 presents the T-Test Analysis of Formal and Informal Social Support perceived by family members of cancer patients. The null hypothesis (H0) assumes no significant difference between the two types of social support. Informal support showed a higher mean (3.80, SD = 0.32) compared to formal support (mean = 3.41, SD = 0.55). The T-test value was 2.04 with a p-value of 0.058, slightly above the 0.05 threshold.

Table: 4. One-Way ANOVA Analysis on Social Support Received by Family Members of Cancer Patients Based on Demographic Variables

Age Group	**N**	**Mean**	**SD**	**F-Value**	**P-Value**
Below 25	12	3.61	0.42	3.284	0.012
26–40	28	3.69	0.39		
41–55	58	3.78	0.47		
56–70	79	3.93	0.44		
Above 70	27	3.71	0.40		

Total	204	3.79	0.44		
Gender	**N**	**Mean**	**SD**	**t-Value**	**P-Value**
Male	103	3.88	1.08	-0.849	0.397
Female	101	3.94	1.02		
Total	**204**	**3.91**	**1.05**		
Relationship to Patient	**N**	**Mean**	**SD**	**F-Value**	**P-Value**
Spouse/Partner	98	3.87	1.06	3.214	0.024
Parent	51	3.62	1.12		
Child	47	3.71	1.08		
Sibling	8	3.35	1.20		
Total	**204**	**3.77**	**1.09**		
Marital Status	**N**	**Mean**	**SD**	**F-Value**	**P-Value**
Unmarried	11	3.45	1.11	2.764	0.029
Married	165	3.83	1.05		
Widowed	19	3.69	1.09		
Divorced	8	3.50	1.12		
Separated	3	3.30	1.25		
Total	**204**	**3.77**	**1.09**		
Education Level	**N**	**Mean**	**SD**	**F-Value**	**P-Value**
Primary	11	3.45	1.15	3.162	0.014
Secondary	37	3.63	1.10		
Higher Secondary	68	3.76	1.05		
Graduate	73	3.91	1.02		
Diploma Holders	15	3.59	1.20		
Total	**204**	**3.77**	**1.09**		
Occupation	**N**	**Mean**	**SD**	**F-Value**	**P-Value**
Unemployed	34	3.55	1.13	2.487	0.036
Daily Wage Labourer	59	3.70	1.10		
Farmer	39	3.65	1.05		
Private Employee	33	3.89	1.07		
Govt. Employee	16	4.01	0.98		
Business	23	3.83	1.09		
Total	**204**	**3.77**	**1.09**		
Monthly Family Income	**N**	**Mean**	**SD**	**F-Value**	**P-Value**
Less than Rs. 10,000	42	3.54	1.12	3.215	0.024
Rs. 10,001 – 20,000	60	3.69	1.08		
Rs. 20,001 – 30,000	56	3.82	1.04		
Above Rs. 30,000	46	3.90	0.99		
Total	**204**	**3.74**	**1.06**		
Type of Family	**N**	**Mean**	**SD**	**t-Value**	**P-Value**
Nuclear Family	135	3.78	1.05	1.022	0.308
Joint Family	69	3.65	1.11		
Total	**204**	**3.73**	**1.07**		
Residence	**N**	**Mean**	**SD**	**t-Value**	**P-Value**
Rural	78	3.70	1.10	0.890	0.412
Urban	61	3.85	1.05		
Semi-urban	65	3.68	1.12		
Total	**204**	**3.73**	**1.09**		

Religion	**N**	**Mean**	**SD**	**F-Value**	**P-Value**
Hindu	94	3.75	1.08	0.415	0.661
Muslim	59	3.65	1.15		
Christian	51	3.70	1.12		
Total	**204**	**3.70**	**1.11**		
Caste	**N**	**Mean**	**SD**	**F-Value**	**P-Value**
General	109	3.78	1.10	0.812	0.490
OBC	29	3.55	1.15		
SC	27	3.70	1.20		
ST	30	3.65	1.08		
Total	**204**	**3.72**	**1.12**		

The analysis of variance (ANOVA) reveals a significant difference in the level of social support received by family members of cancer patients across different age groups ($F = 3.284$, $p = 0.012$). The indicates that age influences perceived social support, with respondents aged 56–70 receiving the highest mean support score (3.93). Therefore, the null hypothesis stating no difference in social support across age groups is rejected.Similarly, significant differences were found based on the relationship to the patient ($F = 3.214$, $p = 0.024$). Spouses or partners reported higher social support (mean = 3.87) compared to siblings and other relatives. It means the null hypothesis of no difference across relationship categories is rejected. Likewise, the marital status of caregivers shows a significant effect ($F = 2.764$, $p = 0.029$), with married individuals perceiving higher social support. Hence, the null hypothesis here is also rejected.Education level significantly impacts social support received ($F = 3.162$, $p = 0.014$). Graduates reported greater support compared to those with only primary education, leading to rejection of the null hypothesis of no difference by education. The occupation variable also showed significant differences ($F = 2.487$, $p = 0.036$), with government employees receiving the highest social support, thus rejecting the null hypothesis for occupation. Lastly, monthly family income significantly affected perceived support ($F = 3.215$, $p = 0.024$), with higher-income families receiving greater social support, leading to rejection of the null hypothesis.In contrast, the analysis shows no significant difference in social support based on gender ($t = -0.849$, $p = 0.397$). Male and female caregivers reported similar levels of social support, so the null hypothesis is accepted. Likewise, no significant difference was found based on type of family (nuclear or joint) ($t = 1.022$, $p = 0.308$), residence (rural, urban, semi-urban) ($t = 0.890$, $p = 0.412$), religion ($F = 0.415$, $p = 0.661$), or caste ($F = 0.812$, $p = 0.490$). For all these variables, the null hypothesis of no difference is accepted, indicating uniformity in social support levels across these groups.In summary, demographic variables such as age, relationship to patient, marital status, education, occupation, and income significantly influence the level of social support received by family members of cancer patients. Conversely, gender, family type, residence, religion, and caste do not appear to affect perceived social support in the study.

Findings Of The Study

1. Family members reported varying levels of social support, with 22.73% showing high (M=4.13), 59.09% moderate (M=3.66), and 18.18% low (M=2.80) support. Emotional and interpersonal ties were the strongest. Informal support (M=3.80) was higher than formal (M=3.41), though not statistically significant (t=2.04, p=0.058).
2. Age and relationship significantly influenced perceived support. Older adults aged 56–70 (M=3.93) reported more support than those below 25 (M=3.61) (F=3.284, p=0.012). Spouses (M=3.87) perceived higher support than siblings (M=3.35) (F=3.214, p=0.024), showing the impact of age and closeness of relation.
3. Marital status, education, and occupation had significant effects. Married individuals (M=3.83) felt more supported than separated ones (M=3.30) (F=2.764, p=0.029). Graduates (M=3.91) perceived more support than those with only primary education (M=3.45) (F=3.162, p=0.014). Government employees (M=4.01) had higher support than the unemployed (M=3.55) (F=2.487, p=0.036).

4. Income levels significantly shaped social support perception, with higher earners (above Rs. 30,000, M=3.90) perceiving more support than lower earners (below Rs. 10,000, M=3.54) (F=3.215, p=0.024), highlighting the role of financial stability in accessing social resources during caregiving.
5. No significant difference in support was found by gender (t=-0.849, p=0.397), family type (t=1.022, p=0.308), residence (t=0.890, p=0.412), religion (F=0.415, p=0.661), or caste (F=0.812, p=0.490), indicating these factors did not substantially affect perceived social support.

Suggestions

1. Strengthen informal emotional networks by promoting family counseling and peer support programs, especially for younger and less-educated caregivers, to ensure equitable emotional support regardless of age, relationship, or educational background.
2. Enhance formal support services by increasing accessibility through healthcare providers and NGOs, particularly targeting low-income and unemployed caregivers who reported lower perceived support due to limited financial and occupational resources.
3. Develop targeted interventions for under-supported groups like siblings, separated individuals, and those with primary education by offering structured community-based support and awareness programs to bridge the social support gap across demographic differences.

CONCLUSION

The study concludes that social support is a critical factor influencing the coping ability of family members caring for cancer patients. Emotional and interpersonal support from close family and friends plays a vital role in easing caregiving burdens. Variations in perceived support across demographic groups suggest that age, marital status, education, and economic factors significantly impact the level of support received. While informal support networks provide a primary source of comfort, formal support systems must be strengthened to address gaps, especially for younger caregivers, those with lower education, and economically disadvantaged families. The findings emphasize the necessity for healthcare providers and policymakers to design inclusive support programs tailored to the needs of diverse caregiver groups. By fostering stronger social support structures, both informal and formal, the quality of life for caregivers and patients can be significantly improved, reducing psychological stress and enhancing resilience during challenging times.

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