The Impact of Family Support on the Well-Being of Children with Cancer

Ms. Anitha Bharathan[1], Dr Sherin Antony[2]
[1] *Jain University*
[2] *Christ University*

Abstract* - The family intervention for the well-being of kids with cancer is centered on the researcher's human service intervention approach for increasing the family endurance of kids with cancer. Efficiency in family involvement was one of the exterior aspects of family endurance. Kid's well-being is aided by families who work properly as a unit. The way family functions can have an impact on how a kid with cancer adjusts. It's critical to understand how familial functioning, especially parental adaptation and distress, may alter during therapy to deliver successful family treatments. According to a review of the available literature, there are some differences in results in family functioning as a result of childhood malignancy. Although some families demonstrated resiliency through the therapy, others showed evidence of deterioration. Furthermore, several families showed signs of improvement. Furthermore, it was discovered that such findings were linked to several study approaches, including qualitative, quantitative, longitudinal, and cross-sectional research. Depending on these empirical distinctions, the goal of this review was to find correlations between various research approaches and specific outcomes to gain a better understanding of the dynamic shifts within families and their role during childhood treatment for cancer. The descriptive phase's findings revealed that parents' perceptions of their well-being and ability to face the difficulties of sickness are low, that they face severe economic burdens, and that they face a burden in disrupting typical family routines, family relaxation, and family communication. The family members' overall health was affected by the child's sickness. As the treatment progressed, parents noticed a decrease in the social protection they got. Following the intervention, the investigator evaluated the families' family system and discovered favorable improvements in familial closeness, parenting practices, and familial dispute.

***Index Terms* - Family functioning, children, cancer, financial aspects, social support.**

INTRODUCTION

A child's cancer has an impact on the whole family and will be a cause of continuous anxiety for the sick child's siblings and parents. It takes away their sense of safety, creates uncertainty, worry, and stress, and disrupts their lives. It galvanizes the parent since they must balance therapy and frequent hospital visits with the stresses of ordinary life. They have a tremendous emotional load to bear. Families are tormented by the knowledge that the condition is irreversible and will last a lifetime, as well as the reality that the kid will have to deal with mental and physical suffering. Objectives, values, priorities, and strategies for the short and long term are all shifting. The family must learn to operate in new situations, deal with adversity, and deal with tough emotions and disagreements. They must balance the demands of caring for an ill child with professional obligations, financial considerations, caregiving for healthy brothers and sisters, and social interaction. It renders cancer treatment challenging, burdensome, and often even unacceptably difficult for the entire family.

The family goes through numerous emotional stages as they adjust to the condition. The intensity and type of experience are determined by the family's attitude and mutual relationships. [1] Rage, contempt, and sorrow are all steps in the process of saying goodbye to the sick individual. [2] Each stage results in alterations in family individuals' behavior and connections, as well as communication issues, somatic issues, and role swaps. [3]

[4-7] Pediatric cancer was a subspecialty of medicine that deals with the diagnosis and treatment of cancer in children under the age of 18. It is considered one of the most difficult specialties because, while the effective therapy of many kids, numerous forms of malignancies still have a high mortality rate. According to WHO research on pediatric cancer, more than 2 lakh kids are diagnosed with malignancy each

year, a disease that shakes communities and families around the world. [8-10] For 70 percent of pediatric cancer patients, access to and affordability of high-quality healthcare ensures survival and fulfilling life.

Pediatric cancer is characterized by nonspecific symptoms and signs, as well as the late discovery of those symptoms and signs. In high-income nations, close parental and medical monitoring increases the chances of early discovery of juvenile cancer. [11] In low-income nations, however, limited access to healthcare facilities and poor diagnostic tools make early detection even more difficult [12]. Every year, around 3,17000 cancer cases are diagnosed in childhood, with roughly 79,000 cancer-related fatalities.

[13-17] Cancer was the ninth leading cause of mortality among children aged 6 to 13 years old in India. Only 2% of all fatalities in this cohort are thought to be caused by cancer. [18] Even though India has a higher rate of childhood cancer than the industrialized world, this has not been considered a concern in health care. [19-20] This could be owing to a misunderstanding about its role in overall child deaths. With roughly 45,000 children treated for cancer each year, pediatric cancer accounts for less than 6% of India's total tumor burden. [21]

There was a gap in India's ability to accurately measure the prevalence of childhood cancer throughout the country, and also across union territories and states. [22] This must begin with the PBCRs and also the HBCRs' documented cases of incidence. Another hurdle to quantifying the incidence of pediatric cancer was a lack of awareness about the disease among parents, who may not identify the symptoms and signs or lack the resources to provide a proper diagnosis healthcare facility for their children. [23-15] Even if cancer has been identified, families might be unable to afford therapy and choose to discontinue treatment before the child is registered. [26]

Traumatic symptoms in carers might arise and last during the initial year of treatment. It's also vital to evaluate how siblings respond to the condition, taking into account the patient's family's psychological issues. [27] Bringing up a difficult subject, including an illness, can be excruciating for a parent who wishes to keep their child as pain-free as possible. Children, on the other hand, are acutely aware of hidden concerns or feelings. Excessive crying, sleep difficulties, and violent behavior are all symptoms of unspoken emotions. [28] When a child knows of a sibling's sickness, they may experience feelings of guilt, remorse, anger, responsibility, rejection, and even dread that the parent will become sick.

[29]The family's adaptability to the condition and therapy is determined by how they deal with these requirements. Most parents with a child hospitalized with cancer are expected to be stressed, but they will be able to manage the disease and its care and adjust to the circumstances. However, some families face greater challenges in the case of a child's cancer due to personal, family, community, and financial issues, and must overcome greater adversity than others. [30] The importance of psychosocial treatment for the sufferer and their family cannot be overstated. This turns out to be an essential component of comprehensive treatment that any family with a kid diagnosed with illness should consider.

[31] For planning and implementing holistic care, it is required to examine the influence of a child's cancer on the working of their relatives, as well as to analyze the issues and requirements of the child's parents/families in all aspects of life. Recognizing a family's problems is critical since it enables the provision of support, psychological support, psycho-education, and accurate information. [32]

[33]The most generally employed result measures in investigation with parents of kids with illness focus on characteristics of parental psychological health, including evaluations of stress, sadness, or post-traumatic stress disorder. Questionnaires intended to examine a larger range of health-related results, including measurements of life quality or health-related life quality, are a new and increasingly used method to outcome analysis. [34] QoL tools are based on the belief that health is multifaceted and subjective, and so must be assessed by immediately asking people.

[35] Despite the clinical perception that parents of kids in current treatment for cancer have a lower quality of life than parents of healthy children, little research has been done to date to tackle this clinically essential subject. [36] There is a scarcity of studies on health-promoting self-care behaviors for parents of kids with cancer, such as obtaining adequate rest, feeding nutritiously, and exercising regularly. Such research must also take into account the child's features because elements like treatment response and the child's

overall health have an impact on how much time the mother has remaining to engage in self-care activities.

FACTORS

Childhood Cancer's Effect on Family Functioning

The 5-year rate of survival for all tumor tissues has grown to 79 percent because of amazing breakthroughs in children's treatment for cancer. Recurrent hospitalizations, invasive therapies for the child, role transitions inside the family, and the ambiguity of prognosis, according to some, can be stressful for the family, resulting in crippling family functioning. Furthermore, [37] suggest that physical deformities in pediatric cancer victims, particularly cranial and spinal malformations, as well as hair loss as a result of treatments, may have severe psychological consequences. Such physical deformities may raise the chances of developing stress, despair, and a more negative self-image, lowering the life quality for young patients. These physical qualities might have a mental effect on the family because they may remind them of their child's sickness.

The Effects of Childhood Cancer During Treatment

[38] highlight the impact of juvenile cancer on families during the four stages of therapy: diagnosis, illness stabilization, and treatment completion.

Diagnosis level.

Parents sometimes wait days or even weeks before bringing their kids to the hospital since common pediatric cancer signs like lethargy and joint pain are often neglected during the diagnosis process. [39] The parents' guilt can increase as a result of the delay. When families do take their children to the doctor, they frequently witness their children undergoing painful, intrusive diagnostic tests. Meeting with unknown multidisciplinary experts and obtaining a large amount of data about the condition can be overwhelming and cause worry in parents. Siblings can also feel their routines are disturbed as a result of the sickness, as they are concerned about their unwell sister or brother's life and wellbeing. Simultaneously, siblings could be or feel alienated by their family members because their families' attention is focused on the sick children, and that brother and sister must not receive enough data about the disease from their family members, trying to prevent them from getting a full and precise knowledge of their sick brother or sister's perspectives. For such children, this could be a frightening experience. Phase one of the treatment. [40] Families' daily life may start to center on treatment during the treatment beginning stage. Parents may face worry and feelings of guilt as they watch their children encounter side effects and start or prolong difficult therapies, which may give families anguish and a sense of guilt as the feeling of seeing their kids suffer takes its burden on their mental health.

Phase of illness stabilization

Treatment starts to be more fully integrated into families' new daily living routines during the illness stabilization period, which occurs weeks and months following diagnosis, however, recurrence and serious side effects are possible.

The end of the treatment phase.

Intensive treatment is substituted with frequent follow-up visits after the completion of treatment — usually years or months after diagnosis. During this time, the total load on the families can be reduced. However, this frequently causes parents to experience mixed emotions, such as dread and joy[42]. Families may become more reliant on medical care and staff as treatment progresses, allowing them to avoid the worry of recurrence. As a result, families may feel bereft of the sense of protection and security they had while their children were under constant supervision, leading to increased worry. In addition, families must re-create their daily routines without the predictability of previous tumor treatments. Because families can have fully integrated treatment options into their activities by this point, such as food restrictions and restricted physical exercise, breaking these habits could be difficult. [43]

The fear of mortality, relapse, and long-term unfavorable side effects from therapy, like growth problems and infertility, can linger in the thoughts of families even after treatment is completed. As a result, because each stage of pediatric cancer therapy has a varied and major effect on their performance, families' experiences can shift dramatically during therapy.

Childhood Cancer Treatment and Family Functioning

[44] Because health care practitioners have regular interaction with the family during therapy, particularly

during admissions or intensive therapy, they may be able to see the impact of children's illness on the family. The rigors of treatment, for instance, may lead parents to shift employment to be accessible for their child's frequent medical visits, or to enlist the help of a relative to care for siblings. Similarly, a potential disturbance in the equilibrium of family ties could result to divorce in the future. Worries about financial troubles may grow as the therapy progresses, putting further burden on family life. Rather than properly comprehending the underlying intricacies of such difficulties, health care workers sometimes make the mistake of incorrectly linking worsening family connections (e.g., divorce) or parental stress (e.g., depression) to pediatric cancer. Health care practitioners must evaluate family function in terms of physical signs, because it has the potential to influence ill children's current and future psychological adaptation, as well as their treatment, in both indirect and direct ways. [45]. For example, if the family is collaborative and communicates openly about the disease, the child may be better equipped to recognize the situation. Pediatricians, on the other hand, may be unable to proceed with therapy if psychosocial issues in the family prevent parents from making hospitalization and obtaining medical advice regularly.

DISCUSSION

Demographic Data

All of the responses were parents of cancer-stricken children, regardless of their legal status. A total of 750 parents finished the questionnaire, and 799 people were surveyed, with women accounting for 76% of the respondents and males for 15%. The mother's average age was 40.2, with a standard deviation of 6.98, and the father's average age was 50.2, with a standard deviation of 8.90. Moreover half of the women polled said they had completed higher education (49 percent, 89 percent CI: 49–55), with 29 percent saying they had completed secondary school (89 percent CI: 29–37) and 14 percent saying they had completed vocational education (89 percent CI: 11–20). In the case of men, secondary education predominated (50 percent, 89 percent CI: 39–49), vocational education was declared by 42 percent (89 percent CI: 29–30), and higher education was declared by 20 percent (89 percent CI: 16–25). The majority of parents (70 percent, 89 percent CI: 60–69) resided in the city, while the rest (29 percent, 89 percent CI: 30–37) lived in the country. The disease of the kid has a significant impact on the social, physical, and mental components of their caregivers from the moment they are diagnosed. [46] According to multiple studies, parents' reactions to the diagnosis are usually shock, denial, and a reduction in life quality. Increased levels of mental stress, such as sadness, anxiety, somatic signs, sleep difficulties, excessive worry, relapse dread, and exhaustion, have been observed in the study on family functioning. [47]

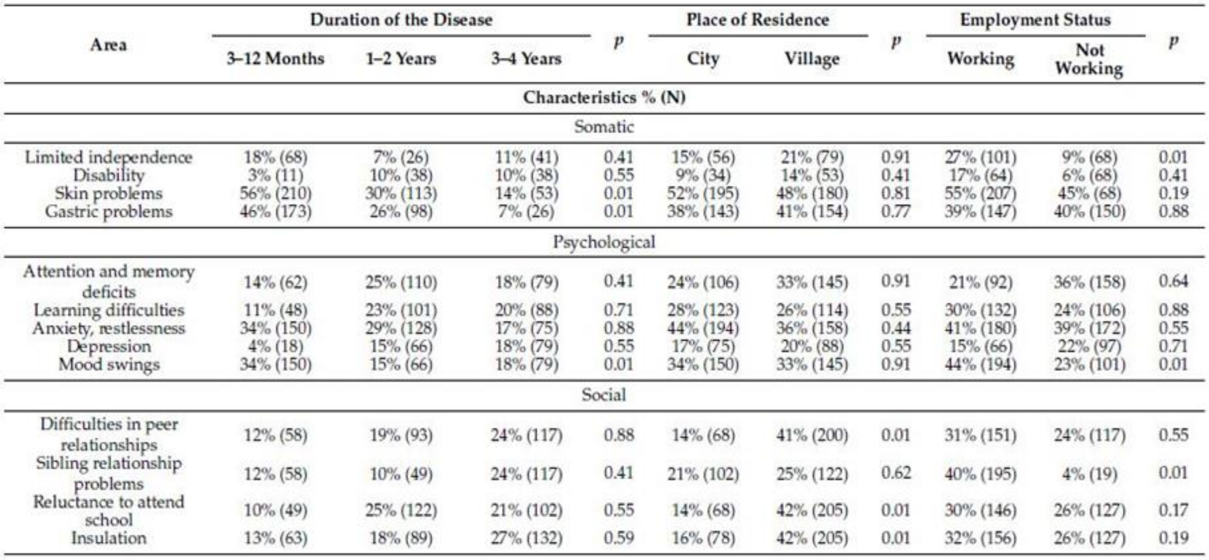
Financial issues

Moreover, half of the families (65%, 89 percent CI: 61–69) said their financial status was average, while 10% (89 percent CI: 12–16) said it was very bad. Almost half of the polled families assumed that their economic position had deteriorated to a modest extent as a result of their child's illness, 40% (89 percent CI: 37–39) assumed that it had deteriorated to a great extent, 10% presumed that it had worsened to a minor extent (89 percent CI: 12–16), and 5% (89 percent CI: 4–8) presumed that their financial position had not altered. The kid was an extra financial strain for 25% of the families (89 percent CI: 21–26). Professional work provided income to 75 percent (89 percent CI: 72–76) of families, while 25 percent (89 percent CI: 20–256) had quit their jobs. [48] There was a significant statistical association between the level of difficulties and the financial condition, according to the findings of a simple examination of the degree of problems. Financial issues were more frequently recorded by parents of children who had been ill for a longer period; also, financial problems were more frequently recorded by parents of children who had been ill for a longer period.

Caring issues

The majority of youngsters (67 percent, 89 percent CI: 70–76) were self-sufficient, with only 29 percent (89 percent CI: 30–36) requiring parental assistance. The majority of youngsters, up to 40% (89 percent CI: 40–46), need moderate assistance, while 40% (89 percent CI: 38–42) required extensive assistance and 20% (89 percent CI: 18–22) required little assistance. 39 percent (87 percent CI: 42–49) of the family believes their kids have physical difficulties, 49 percent (89 percent CI: 45–59) feel their kids have psychological issues, and 79 percent (89 percent CI: 40–52) believe their kids have social [49] problems (Table 1). Figure 1 illustrated the sources of caring problems.

Table 1. Caring problems.



Area	Duration of the Disease			p	Place of Residence		p	Employment Status		p
	3–12 Months	1–2 Years	3–4 Years		City	Village		Working	Not Working	
Characteristics % (N)										
Somatic										
Limited independence	18% (68)	7% (26)	11% (41)	0.41	15% (56)	21% (79)	0.91	27% (101)	9% (68)	0.01
Disability	3% (11)	10% (38)	10% (38)	0.55	9% (34)	14% (53)	0.41	17% (64)	6% (68)	0.41
Skin problems	56% (210)	30% (113)	14% (53)	0.01	52% (195)	48% (180)	0.81	55% (207)	45% (68)	0.19
Gastric problems	46% (173)	26% (98)	7% (26)	0.01	38% (143)	41% (154)	0.77	39% (147)	40% (150)	0.88
Psychological										
Attention and memory deficits	14% (62)	25% (110)	18% (79)	0.41	24% (106)	33% (145)	0.91	21% (92)	36% (158)	0.64
Learning difficulties	11% (48)	23% (101)	20% (88)	0.71	28% (123)	26% (114)	0.55	30% (132)	24% (106)	0.88
Anxiety, restlessness	34% (150)	29% (128)	17% (75)	0.88	44% (194)	36% (158)	0.44	41% (180)	39% (172)	0.55
Depression	4% (18)	15% (66)	18% (79)	0.55	17% (75)	20% (88)	0.55	15% (66)	22% (97)	0.71
Mood swings	34% (150)	15% (66)	18% (79)	0.01	34% (150)	33% (145)	0.91	44% (194)	23% (101)	0.01
Social										
Difficulties in peer relationships	12% (58)	19% (93)	24% (117)	0.88	14% (68)	41% (200)	0.01	31% (151)	24% (117)	0.55
Sibling relationship problems	12% (58)	10% (49)	24% (117)	0.41	21% (102)	25% (122)	0.62	40% (195)	4% (19)	0.01
Reluctance to attend school	10% (49)	25% (122)	21% (102)	0.55	14% (68)	42% (205)	0.01	30% (146)	26% (127)	0.17
Insulation	13% (63)	18% (89)	27% (132)	0.59	16% (78)	42% (205)	0.01	32% (156)	26% (127)	0.19

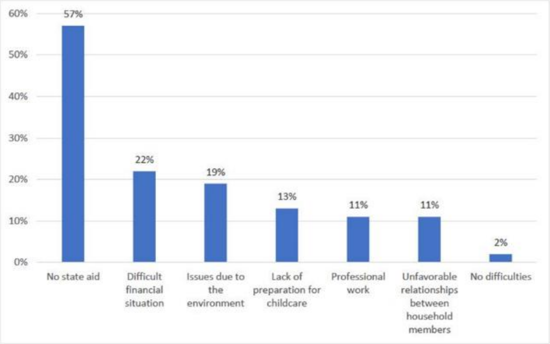


Figure 1. The sources of the caring problems.[50]

Psychological Issues

After learning that their child was unwell, 19 percent of parents (89 percent confidence interval: 20–23) were distraught, 33 percent (89 percent confidence interval: 30–36) disputed the sickness, and 46 percent (89 percent confidence interval: 40–43) did not believe the diagnosis. Parents were anxious (69 percent, 89 percent CI: 70–74), resigned (9 percent, 89 percent CI: 5–17), helpless (9 percent, 89 percent CI: 5–10), and determined to provide proper care (8 percent, 89 percent CI: 5–8) about their child's future at the time of data collection, while 12 percent (89 percent CI: 12–19) had not come to terms with the disease. Parents were the ones who received the most help from their own families (33 percent, 89 percent confidence interval: 32–35). (Figure 2).

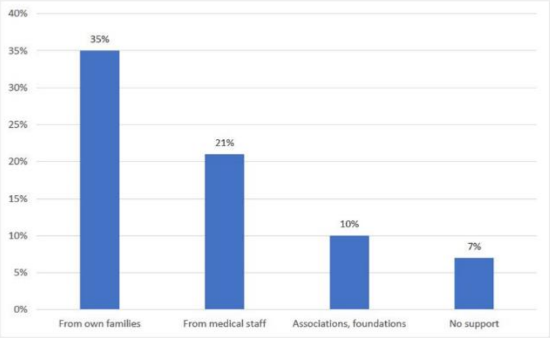


Figure 2. Sources of assistance

Friendship insensitivity or rejection was reported by up to 33% (89 percent CI: 31–38) of families, and also a lack of social support (21 percent, 89 percent CI: 20–25). A total of 94 percent of parents (89 percent confidence interval: 92–97) thought they had solid communication with their sick person. Overall, 30 percent of parents (89 percent CI: 20–25) benefited from psychological treatment due to a variety of psychological issues (Figure 3).

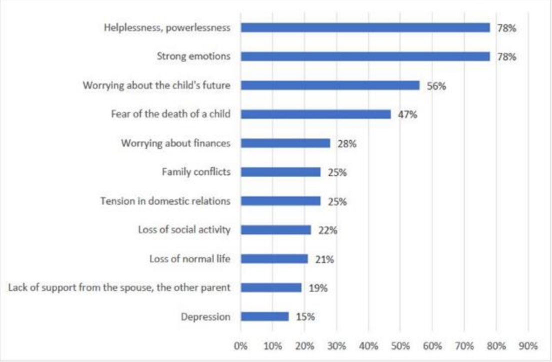


Figure 3. Use of a psychologist for a variety of reasons [51]

FAMILY ISSUES

In the majority of cases, the child's illness did not affect the family's relationship (40 percent, 89 percent CI: 40–45), it reinforced family ties in 34 percent (89 percent CI: 29–37), and it impaired family relations in 30 percent (89 percent CI: 23–30). More than half of the siblings (54 percent, 89 percent CI: 50–60) had a very positive attitude toward the sick child, as per the parents; nonetheless, 47 percent (89 percent CI: 42–48) experienced moderate or major disputes with the sick child. 70 percent (89 percent CI: 63–73) of the parents surveyed said they had issues with their other children. Tantrums (34 percent, 89 percent CI: 41–49), learning issues (28 percent, 89 percent CI: 20–25), and behavior issues (20 percent, 89 percent CI: 16–26) were the most commonly stated problems in siblings. (Figure 4 shows the cause of family strife.

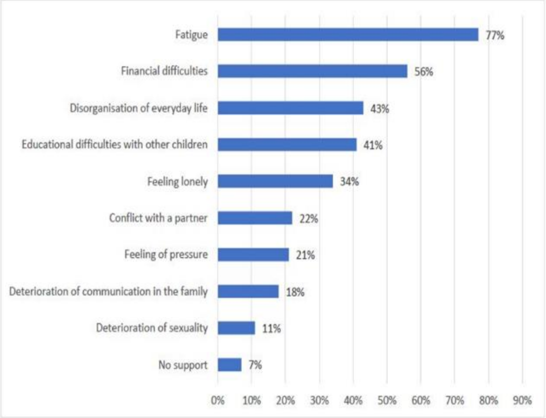


Figure 4. The cause of family strife. [52]

The financial and professional lives of parents are significantly impacted by their child's illness. According to the study, 96 percent of parents felt a financial strain associated with treatment, rehabilitation, and care to some degree or another, and 24 percent had to entirely stop working. It was discovered that during active treatment of children, the parents' working lives were substantially jeopardized, with 46% of parents facing job loss, 51% having limited career prospects and 68% having to decrease their working time [53]. Another study found a statistically significant 21% decrease in mothers' income and a statistically meaningful 10% decrease in dads' income in the year of treatment when contrasted to a control sample of fathers and mothers, etc.

CONCLUSIONS

Parents of cancer-stricken children describe a slew of social, psychological, and physical issues. The detection of difficulties through monitoring should lead to specialized actions, including assistance for cancer-affected children's families. When a child is sick, encouraging the ability to cope with painful emotions and solve difficulties has a positive impact on the family's functioning. Siblings of children with cancer may exhibit signs and negative feelings as parents because they must also deal with the family's modified daily life and their parents' decreased physical and emotional availability. Our research revealed that, in addition to the evident assistance provided by siblings, there are disagreements and communication issues.

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The main objective behind our undertaking is to offer the farmer friendly automated system to avoid the mistakes done by normal farmers. In this system we can offer the extraordinary type of sensors to monitors temperature, humidity, and soil moisture, intensity of light and water stage within the well. The system mainly focuses on detecting the suspicious motion and notify the farmer. The prevailing concept behind this project is to the make

All of the farming sports internet software based in limited power and reduces all the problems that farmer faces.

MOTIVATION

The applicability of the Internet of Things will subvert some of sector, shape automation, transportation, energy, healthcare, financial matter to nanotechnology.

IOT is the modern technology to make Existing system very easy. Before this system farmers have to do all of the work through themselves now through the usage of this generation lots of their paintings may be automated and may be display well with the assist of sensors and cameras which will assist them to control records and boom in their crop as well. Many tough works and time orientated works may be effortlessly and manage the use of IOT remotely.

Weather: Farming mainly depends on climate conditions. Farmers face extremely good threat in growing crops, as deficient rainfall and excess water deliver can destroy the crop or cause a lower in farm produce.

Lack of knowledge and skill: Literacy is also one of the most important elements affecting in all of the sectors. Literacy fee in rural locality is pretty low and it receives even decrease, if we generally talk about farmers of India. Lack of literacy issue in farmers being ignorant of adjustments going on in the farming sector. IOT (Internet of things) and lot of other technology have eased many of our lives.

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