



ARTICLE RESEARCH

URL article: <http://jurnal.fkmumi.ac.id/index.php/woh/article/view/woh9201>

Relationship Between Family Support and Colorectal Cancer Patients' Motivation for Undergoing Chemotherapy

^CDedi Irawandi¹, Setiadi², Dwi Priyantini³

^{1,2,3} Nursing Vocational Study Program, Hang Tuah College of Health Sciences, Surabaya, Indonesia

Correspondent Author's Email (C): dediirawandi@stikeshangtuah-sby.ac.id

dediirawandi@stikeshangtuah-sby.ac.id¹, setiadi@stikeshangtuah-sby.ac.id², dwpriyantini@stikeshangtuah-sby.ac.id³

ABSTRACT

Globally, colorectal cancer is one of the most highly prevalent cancers according to the World Health Organization, with the majority of patients undergoing chemotherapy. Various studies show that more than 70% of patients experience significant physiological impacts such as fatigue, nausea, and disruption of daily activities, while approximately 30% experience psychological disorders such as anxiety and depression. Furthermore, more than 60% of patients require family support during treatment. This demonstrates that the impact of chemotherapy is multidimensional, encompassing physical, psychological, and social aspects, necessitating a comprehensive care approach that includes family involvement. The purpose of this study was to determine the relationship between family support and motivation of colorectal cancer patients undergoing chemotherapy. The study design used an observational analytic design with a cross-sectional approach. The study population comprised all 55 colorectal cancer patients undergoing chemotherapy in the Rosella 2 Room at Dr. Soetomo Hospital, Surabaya. A sample of 48 people was taken using the Simple Random Sampling technique. Data analysis used the Spearman Rho correlation test. The results showed that of the 48 respondents, 43 people had high family support and 42 people had strong motivation. Bivariate analysis showed that there was a significant relationship between family support and patient motivation in undergoing chemotherapy. The results of the Spearman Rho test analysis obtained a rho value = 0.902 with a significance value of $P\ 0.000 < 0.05$. The active role of nurses in providing education to families and patients is very important in providing information related to chemotherapy. So that it can provide a sense of security, comfort, and trust in nurses. Thus, patients have strong motivation, high life expectancy, and increased family enthusiasm in accompanying the treatment process.

Keywords: Family Support; Motivation; Colorectal Cancer; Chemotherapy

PUBLISHED BY :

Faculty of Public Health
Universitas Muslim Indonesia

Address :

Jl. Urip Sumohardjo Km. 5 (Campus II UMI)
Makassar, Sulawesi Selatan.

Email :

jurnalwoh.fkm@umi.ac.id

Phone :

+62 82188474722

Article history

Received 25 Maret 2026

Received in revised form 8 April 2026

Accepted 20 April 2026

Available online 25 April 2026

licensed by [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).



INTRODUCTION

Colorectal cancer is a malignancy of the colon or rectum that develops due to the progressive proliferation of abnormal cells and is a leading cause of death worldwide. One treatment for this disease is chemotherapy, which, while effective in inhibiting cancer cell growth, also causes various physiological and psychological side effects. These effects not only affect the patient's physical condition but also contribute to a decreased quality of life and motivation to undergo therapy ¹. The physiological and psychological impacts of chemotherapy play an important role in reducing patient motivation to recover, which emphasizes the importance of family support-based interventions and psychosocial approaches in increasing the success of therapy ². The multidimensional effects of chemotherapy, both physiological and psychological, have proven to be a significant challenge in maintaining patient motivation to recover, so a holistic approach is needed that focuses not only on medical therapy, but also on psychosocial support and family involvement ³.

Chemotherapy in colorectal cancer patients not only causes physical effects but also significantly impacts psychological conditions, such as increased anxiety, depression, and decreased quality of life due to the burden of prolonged therapy ⁴. Psychological factors such as anxiety, depression, and emotional exhaustion can reduce treatment adherence in colorectal cancer patients undergoing chemotherapy, as these conditions affect motivation, perceptions of the benefits of therapy, and the patient's ability to consistently follow the treatment regimen. Therefore, positive family support is essential for patients as it can increase their motivation to undergo chemotherapy. However, in reality, family support is still very lacking ⁵.

Data from the World Health Organization shows that colorectal cancer is a leading cause of morbidity and mortality worldwide, with millions of new cases and hundreds of thousands of deaths annually ⁶. In Indonesia, the burden of colorectal cancer also shows a significant trend, particularly in referral health care facilities ⁷. Locally, data from Dr. Soetomo Hospital shows that colorectal cancer is among the top ten cancer diagnoses, with the number of outpatient visits fluctuating in recent years ⁸.

Family support, encompassing emotional, rewarding, instrumental, and informational aspects, plays a crucial role in increasing the motivation of colorectal cancer patients undergoing chemotherapy. Chemotherapy side effects often lead to low self-esteem and difficulties with self-acceptance, which can diminish patients' enthusiasm for therapy ⁹. In such situations, the presence and support of family can provide a sense of security and comfort, and enhance feelings of being valued and loved, thus encouraging patients to be more motivated and adherent to treatment ¹⁰.

Motivation is a psychological state that drives individuals to act to achieve goals. It consists of three main components: needs, drives, and goals. In the context of colorectal cancer patients undergoing chemotherapy, various side effects and the length of the therapy process can reduce motivation and trigger stress, fear, and psychological distress ¹¹. Lack of family support can potentially exacerbate these

conditions, leading to decreased enthusiasm for treatment. Conversely, optimal family support can help maintain patient motivation to consistently undergo chemotherapy ¹².

Unoptimally managed conditions can lead to delays or even refusal of chemotherapy, potentially hindering treatment effectiveness and accelerating disease progression. Therefore, comprehensive nursing interventions are needed through providing support and increasing patient and family knowledge about colorectal cancer, chemotherapy, and managing its side effects ¹³. A good understanding and support from the family is expected to increase support provided, thus contributing to strengthening patient motivation to optimally undergo chemotherapy ¹⁴.

METHODE

This study employed an observational analytical design with a cross-sectional approach. The study population comprised all 55 colorectal cancer patients undergoing chemotherapy at the Rosela 2 Ward of Dr. Soetomo Hospital, Surabaya, in December 2024. The sampling technique used was simple random sampling, with inclusion criteria including patients undergoing chemotherapy, conscious and able to communicate, and willing to participate. Exclusion criteria were patients with clinical conditions that prevented them from completing the questionnaire. The sample size was determined by the number of respondents meeting the criteria, 44.

Data collection was conducted after the researcher explained the research objectives and obtained written informed consent from the respondents. The instruments used included a family support questionnaire comprising 19 items across four dimensions: emotional support, appreciation, instrumental support, and informational support. Meanwhile, the motivation questionnaire consisted of 25 items describing aspects of needs, motivation, and goals in undergoing chemotherapy. All items were scored using a Likert scale, with response options reflecting the respondent's level of agreement with each statement.

Instrument validity was tested using the Pearson Product Moment correlation test, with all items declared valid (calculated $r >$ tabulated r). Reliability was tested using the Cronbach's alpha coefficient, with a value > 0.70 indicating instrument reliability.

Control for confounding variables was achieved by establishing inclusion and exclusion criteria and maintaining uniformity in respondent characteristics, such as the type of therapy received and the patient's general condition. Furthermore, the researchers provided the same explanation to all respondents and used standardized instruments to minimize measurement bias.

This study has received ethical approval from the Health Research Ethics Committee of the Hang Tuah Health College in Surabaya and permission from the Research and Development Agency of Dr. Soetomo Hospital in Surabaya, under license number 008/KEKP/I/2024.

RESULT

Table 1: Demographic data of the respondents

Demographic data	N	%
Family status		
Head of family	24	52,2
Wife	17	33,2
Child	1	2,1
Parent	6	12,5
Gender		
Male	24	50
Female	24	50
Age		
26-35	2	5,3
36-45	6	9,4
46-55	15	31,3
56-65	14	29,1
≥66	11	22,9
Education		
Elementary School	20	41,7
Junior High School	9	18,8
Senior High School	16	33,3
Bachelor	3	6,2
Marital status		
Married	37	77,1
Widower/Widow	10	20,8
Not married yet	1	2,1
Total	48	100

Based on Table 1, which describes the distribution of family status among colorectal cancer patients, the majority were 24 men (50.0%) and 24 women (50.0%). Of the 48 respondents in the Rosela 2 Ward at Dr. Soetomo Hospital, Surabaya, 15 (31.1%) were aged 46-55 years, 14 (29.9%) were aged 56-65 years, 11 (22.9%) were aged 66 years and above, 36-45 years (9.4%), and 2 (5.3%) were aged 26-35 years.

Table 2: Respondent Characteristics Based on Chemotherapy Cycle

Chemotherapy cycle	Frequency	Percentage (%)
I	13	27,1
II	2	4,2
III	8	16,7
IV	11	22,9
V	6	12,5
VI	1	2,0
> VI	7	14,6
Total	48	100

Table 2 explains that of the 48 respondents in the Rosela 2 Ward of Dr. Soetomo Hospital, In Dr. Soetomo General Hospital, Surabaya, the majority of colorectal cancer patients underwent chemotherapy cycle I, as many as 13 people (27.1%), cycle II as many as 2 people (4.2%), cycle III as

many as 8 people (16.7%), cycle IV as many as 11 people (22.9%), cycle V as many as 6 people (12.5%), cycle VI as many as 1 person (2.1%) and cycle > VI as many as 7 people (14.6%).

Table 3: Respondent Characteristics Based on Disease Stage

Disease stage	Frequency	Percentage (%)
Stage I	0	0
Stage II	0	0
Stage III	3	6,3
Satge IV	45	93,7
Total	48	100

Based on Table 3, it shows that of the 48 respondents in Rosela Ward 2, Dr. Soetomo General Hospital, Surabaya, 45 (93.8%) suffered from stage IV colorectal cancer, and 3 (6.3%) suffered from stage III.

Table 4: Cross Tabulation of the Relationship Between Family Support and Motivation of Colorectal Cancer Patients Undergoing Chemotherapy

Family Support	Patient Motivation						Total	
	Strong		Medium		Weak			
	N	%	N	%	N	%	N	%
High	42	87,5	1	2,3	0	0	43	100
Medium	0	0	5	10,2	0	0	5	100
Low	0	0	0	0	0	0	0	0
Total	42	87,5	6	12,5	0	0	48	100

Statistical Test Values *Spearman Rho* (p -value = 0,000) ($r = 0,902$)

Based on Table 4, the Spearman Rho analysis showed a correlation coefficient of 0.902 ($p = 0.000$; $p < 0.05$), indicating a very strong and significant relationship between family support and patient motivation to undergo chemotherapy.

DISCUSSION

The analysis showed that the majority of colorectal cancer patients (89.8%) received high levels of family support, while a small proportion (10.2%) received moderate levels. Family support, which encompasses emotional, appreciation, instrumental, and informational aspects, serves as a primary source of coping for patients facing the disease and the chemotherapy process¹⁵. The high proportion of family support in this study indicates that most patients received adequate attention, support, and assistance from their families. This contributes to a sense of security, comfort, and appreciation, thus helping maintain patients' psychological stability. Therefore, these findings reinforce the importance of optimal family support in supporting patient readiness and resilience during treatment¹⁴.

The results of the study showed that the majority of colorectal cancer patients had strong motivation in undergoing chemotherapy (87.5%), while a small portion had moderate motivation (12.5%)¹⁶. This finding indicates that patients have a high psychological drive to recover, which has an

impact on increasing adherence to treatment. This is in line with the theory of hope, where confidence in the results of treatment encourages patients to continue undergoing chemotherapy consistently¹⁷.

Expectancy theory states that individuals will be motivated to act if they believe their behavior will achieve their desired goals. Motivation is an internal or external force that drives individuals to act to meet needs and achieve goals¹⁸. Based on the research results, the high motivation of 42 respondents (87.5%) and the majority of colorectal cancer patients indicated a strong belief in the success of treatment¹⁹. This high motivation plays a crucial role in fostering hope and encouraging patients to undergo chemotherapy consistently²⁰.

The results showed that most respondents had high family support and strong motivation (89.6%), while a small proportion had a combination of support and motivation in the moderate category. Spearman Rho test analysis showed a p value = 0.000 ($p < 0.05$) with a correlation coefficient of 0.902, indicating a very strong relationship between family support and the motivation of colorectal cancer patients undergoing chemotherapy²¹. This finding indicates that the higher the family support received, the higher the patient's motivation in undergoing treatment. Family support plays a role in increasing life expectancy, so that patients remain enthusiastic about undergoing chemotherapy despite facing side effects, and tend to comply with the recommendations of health workers. These results are in line with previous research that showed a significant relationship between family support and patient motivation in undergoing chemotherapy²². Family support increases the motivation of breast cancer patients to undergo chemotherapy and achieve recovery, the better the family support, the better the motivation of colorectal cancer patients to undergo chemotherapy²³. Family support is a form of service behavior carried out by the family, both in emotional support, appreciation, instrumental and information¹⁶. Various side effects caused by chemotherapy, patients have difficulty accepting their condition, have low self-esteem, and feel insecure when meeting other people because the physical changes that occur in the patient's body can cause patients to experience different feelings, so that patients show rejection of their appearance²⁴.

For colorectal cancer patients, optimal family support is a crucial factor in ensuring successful chemotherapy. Support encompassing emotional, instrumental, and informational aspects not only increases a sense of security and comfort but also strengthens patients' motivation to consistently undergo therapy. The presence of family as a primary support system helps patients manage stress, boosts self-confidence, and strengthens hope for recovery. Furthermore, active family involvement in the treatment process also contributes to improved patient adherence to treatment and quality of life during chemotherapy²⁵.

CONCLUSIONS AND RECOMMENDATIONS

The majority of colorectal cancer patients undergoing chemotherapy reported high levels of family support and strong motivation, and there was a significant relationship between these two variables. These findings confirm that family support is a key factor in enhancing patient

motivation during treatment. The practical implications of these results underscore the importance of nursing interventions that focus not only on the patient but also involve the family in care. Nurses need to develop structured educational programs regarding chemotherapy, side effect management, and psychosocial support strategies that families can provide. Furthermore, nurses can implement family-centered care through counseling, mentoring, and family empowerment, thereby becoming effective sources of support for patients.

From a policy and clinical practice perspective, hospitals are advised to integrate a family-based approach into chemotherapy service standards, such as developing family education guidelines, involving families in treatment planning, and strengthening psychosocial support programs. These efforts are expected to optimally improve motivation, treatment adherence, and quality of life for colorectal cancer patients.

ACKNOWLEDGEMENT

All authors would like to express their gratitude to the Head of Hang Tuah Surabaya College of Health Sciences, and the Head of the Institute for Research, Development, and Community Service of Hang Tuah Surabaya College of Health Sciences, as well as the director of Dr. Soetomo Hospital Surabaya.

REFERENCES

1. Mahajan, N. M., Chaudhari, A., More, S. & Gangane, P. Nanotherapeutics for colon cancer. *Photophysics Nanophysics Ther.* 251–268 (2022) doi:10.1016/B978-0-323-89839-3.00005-1.
2. Nuridah, N., Saleh, A. & Kaelan, C. Analisis Faktor-faktor yang Berhubungan dengan Kualitas Hidup Penderita Kanker Kolorektal di Rumah Sakit Kota Makassar. *J. Keperawatan Indones.* **22**, 83–91 (2019).
3. Pakpahan, R. D. Kualitas Hidup Pasien Kanker Kolorektal yang Baru Menjalani Kolostomi dengan Endstoma. (2015).
4. Del Mastro, L. *et al.* Impact of two different dose-intensity chemotherapy regimens on psychological distress in early breast cancer patients. *Eur. J. Cancer* **38**, 359–366 (2002).
5. Zhong, H. *et al.* How Does Family Function Affect the Activation Of patients With Cancer Anorexia Undergoing Chemotherapy? A Mixed Methods Study. *Semin. Oncol. Nurs.* **41**, 151904 (2025).
6. Goldberg, D. & Pettke, E. Global perspectives on young-onset colorectal cancer: epidemiology, challenges, and advances. *Semin. Colon Rectal Surg.* **36**, 101118 (2025).
7. Thamrin, H., Ilmiah, K. & Tirthaningsih, N. W. Profile of Colorectal Tumor in Gastroentero-Hepatology Center, Department of Internal Medicine, Dr Soetomo Hospital, Surabaya. *Folia Medica Indones.* **56**, 15–18 (2020).
8. Rasjad, I. S. & Tjokropawiro, B. A. The Role of Procalcitonin as a Prognostic Variable in Ovarian Cancer Patients at Dr. Soetomo General Hospital Surabaya. *Indones. J. Cancer* **15**, 107–111 (2021).
9. Agrawal, P. & Jain, M. The Amelioration of Side Effects Associated with Chemotherapy. *Curr. Cancer Ther. Rev.* **21**, 164–175 (2025).
10. Romero-Eliás, M. *et al.* Exploring the perceived benefits of a motivational exercise program (FIT-CANCER) in colorectal cancer patients during chemotherapy treatment: A qualitative study from self-determination theory. *Eur. J. Integr. Med.* **65**, 102328 (2024).
11. Mertens, B., Cuyvers, K., De Maeyer, S. & Donche, V. Unraveling low-educated adults' motivation for second-chance education: A multidimensional perspective. *Learn. Instr.* **97**, 102075 (2025).
12. Bahirwani, J. *et al.* Relative treatment effects of first-line chemotherapy and immunotherapy for hepatocellular carcinoma: A systematic review and meta-analysis. *Cancer Pathog. Ther.* (2025)

- doi:10.1016/J.CPT.2025.04.003.
13. Han, Y. *et al.* Effects of nurse-led interventions on enhancing patient-related outcomes in colorectal cancer management throughout the cancer care continuum: A systematic review and meta-analysis. *Int. J. Nurs. Stud.* **168**, 105100 (2025).
 14. Petersen, J. J., Poulsen, I., Dahn, I. & Konradsen, H. Living with late sequelae after colorectal cancer: A qualitative study on patients' and families' experiences. *Eur. J. Oncol. Nurs.* **76**, 102902 (2025).
 15. Gunnlaugsdóttir, T., Jónasdóttir, R. J., Björnsdóttir, K. & Klinke, M. E. How can family members of patients in the intensive care unit be supported? A systematic review of qualitative reviews, meta-synthesis, and novel recommendations for nursing care. *Int. J. Nurs. Stud. Adv.* **7**, 100251 (2024).
 16. Lei, S., Zhang, Y. & Cheah, K. S. L. Mediation of work-family support and affective commitment between family supportive supervisor Behaviour and workplace deviance. *Heliyon* **9**, e21509 (2023).
 17. Alhelaly, Y., Dhillon, G. & Oliveira, T. When expectation fails and motivation prevails: the mediating role of awareness in bridging the expectancy-capability gap in mobile identity protection. *Comput. Secur.* **134**, 103470 (2023).
 18. Wu, M. *et al.* Embedding relationships in hope: A qualitative study on the hope experience of patients with colorectal cancer based on Snyder's hope theory. *Eur. J. Oncol. Nurs.* **77**, 102916 (2025).
 19. Arthuso, F. Z. *et al.* Effects of Exercise on Motivational Outcomes in Rectal Cancer Patients During and After Neoadjuvant Chemoradiation: A Phase II Randomized Controlled Trial. *Semin. Oncol. Nurs.* **39**, 151419 (2023).
 20. Hannah, C., Eriksson, L. E., Ramwell, A. & Llahana, S. Experiences and perspectives of patients undergoing colorectal cancer surgery: A qualitative study. *Eur. J. Oncol. Nurs.* **74**, 102794 (2025).
 21. Li, F. *et al.* Acceptance of illness and its relationship with benefit finding among patients with colorectal cancer undergoing chemotherapy: A latent profile analysis. *Asia-Pacific J. Oncol. Nurs.* **12**, 100715 (2025).
 22. Aprilianto, E., Lumadi, S. A. & Handian, F. I. Family Social Support and the Self-Esteem of Breast Cancer Patients Undergoing Neoadjuvant Chemotherapy. *J. Public Health Res.* **10**, (2021).
 23. Wang, H. *et al.* Family participation in dignity interventions for patients with cancer receiving palliative care: A scoping review. *Asia-Pacific J. Oncol. Nurs.* 100796 (2025) doi:10.1016/J.APJON.2025.100796.
 24. Mohammad-Jafari, K., Naghib, S. M. & Mozafari, M. R. Liposomal Nanoformulation-encapsulated Paclitaxel for Reducing Chemotherapy Side Effects in Lung Cancer Treatments: Recent Advances and Future Outlooks. *Curr. Med. Chem.* **32**, 5155–5179 (2025).
 25. El Omari, N. *et al.* The role of inflammation in colorectal Cancer and the preventive potential of natural compounds. *J. Funct. Foods* **129**, 106857 (2025).