

Fear of Relapse and Its Impact on of Colorectal Cancer Survivors: A Systematic Review

Maryam changizii\*(phd candidate), Hooshang Mohammadiani(MSc)

1 ☐ Abadan Faculty of Medical Sciences, Abadan, Iran

**Correspondence Address:** 

Abadan Faculty of Medical Sciences, Abadan, Iran

Phone: +98 9396489240

Email: Mrs.changizi@yahoo.com

Abstract

**Background:** One of the most commonconcern is the fear of recurrence (FCR). our study aimed

to investigate the fear of colorectal cancer and its impact on the survivors.

Method

The present study is a systematic review, which was initiated by searching "mesh" in databases

of Scopus, Web of Sciences, PubMed and Embasein all field (titles, keywords, abstracts).finally4

papers were selected .Qualitative evaluation was done through Combined Strobe Statement

checklist.

Result

fear of cancer recurrence among survivors were ranging from medium to high. FCR had a

relationship with the quality of life (QoL) and its dimensions (P<0.001). lack of physical activity

and gender (female more than male, OR=1.58) were more likely to face FCR.

**Conclusion** 

According to the results, for the people with CRC experience, interventions should be planned

with a view toward calming care, by increasing self-efficacy and social support.

Key Words: Fear, Recurrence, Colorectal Cancer



#### Introduction

Colorectal cancer is one of the most common cancers in men and women in the world, with 65% of this disease occurring in developing countries. 1.80 million of the cases and 862,000 of the deaths in the world occur due to this type of cancer. In the last decade, early diagnosis and therapeutic advances in cancer have led to an increase in cancer survival rates and consequently, in the number of cancer survivors (2,1). Survivors of colorectal cancer are not only complain about a series of physical problems, but they also experience a series of psychological problems such as fear of recurrence. [3]. One of the most common concerns in the survivors of this disease is the fear of relapse of the disease. The fear or the concern is the relapse of disease or its progression to the same organ or other organs of the body. [3]. The fear of common relapse is grievous, and almost 50% of the recoveries and 70% of the more vulnerable groups (such as young survivors) report high or moderate fears of relapse [4]. The fear of relapse is studied as a multidimensional structure and shows itself in a wide range of normal to high-level reactions [5]. At the normal level, the person is aware of the symptoms of the disease and takes enough care of himself. But if fear is more than normal, it can have undesirable effects on the quality of life, social activities and mental stress of the individuals and it can create intrusive thoughts [5-2]. The consequence is an increase in health care costs for patients. [4]. Due to the importance of this issue, our study is conducted to investigate the fear of colorectal cancer and its impact on survivors.

#### Method

The present study is a systematic review. In this study, the databases of scopus, web of science, pubmed and Embase were used and the key words of mesh (Colorectal Neoplasms)[Title/Abstract] OR Colonic Neoplasms)[Title/Abstract] OR Sigmoid Neoplasms)[Title/Abstract] AND colon cancer)[Title/Abstract] OR colorectal cancer)[Title/Abstract] OR Rectal Neoplasms)[Title/Abstract] OR Rectal cancer)[Title/Abstract] OR Anus Neoplasms)[Title/Abstract] OR Rectum Cancer)[Title/Abstract] OR Rectum Neoplasm)[Title/Abstract] OR colorectal tumors)[Title/Abstract] OR colon tumor)[Title/Abstract] OR rectum tumor)[Title/Abstract] OR rectal tumor)[Title/Abstract] OR Cancer of the Rectum)[Title/Abstract] OR Cancer of the colon)[Title/Abstract] AND fear)[Title/Abstract] AND recurrence)[Title/Abstract] OR Relapse)[Title/Abstract] OR



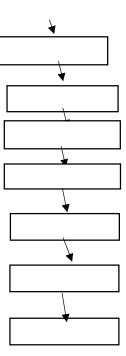
Recrudescence[Title/Abstract]) were applied. The criteria for entering the study included cross-sectional descriptive articles with frequent reports on fears of cancer relapse, published in English. After searching for databases in year 2019, at first, 1527 articles were found, that, after limiting human-based searches, the date of publication of the articles (the past 10 years) and the method of performing the study (descriptive cross-sectional), the number of articles reduced to 3085 .in this range in all fields (titles, keywords, abstracts) we were obtained so many articles.

Many of these have not related to our subject and were removed after review. finally, 45 papers were selected. After removing repetitive and irrelevant items inconsistent with the entry variable, lack of summary and lack of access to the full article, four articles were selected. Qualitative evaluation of the articles was conducted through Combined Strobe Statemer

figure 1. Flowchart for selection of primary study

- 2- Limited to human samples
- 3- Limited to 2019-2010
- 4- Limited to English language
- 5- Limited to cancer subject
- 6- Limited to journal article
  - 7- Excluded because

Irrelevance, whiteout abstract, Unavailable full text, Unrelated results, type of study.



### Results

The findings from this review showed that there is a fear of a return to disease in survivors of colorectal cancer and this score is moderate and upward.

The study of Fisher (2016) showed that 50% of the survivors, are afraid of disease's relapse. In this study, women, in comparison with the men, (OR=1.58, CI95%=1.46-1.71) and younger people (in comparison with older ones) (OR=1.58, CI95%=1.46-1.71) and suburbanites (OR=1.14, CI95%=1.05-1.23), in comparison with the other people, were more worried about disease relapse. Also, FCR has a meaningful relationship with some of the health behaviors, including physical activity and smoking, and it has been found that smokers are more likely to experience a fear of disease relapse than non-smokers. More current smokers (OR=1.34, CI=

# IJ (I) JOURNAL

# IJO - INTERNATIONAL JOURNAL OF HEALTH SCIENCES AND NURSING

1.10- 1.58, p < 0.005), ex $\square$ smoker (OR= 1.11, CI= 1.04- 1.21, p < 0.005). In this regard, it has been reported that patients who have recently been more under treatment, have showed more fear of disease relapse. (P < 0.001). In addition, this study showed that inactive patients are more afraid of disease relapse. [6].

Jae Custers (2015) reported that the rate of disease relapse in survivors who have filled out the CWS (Cancer Worry Scale) Questionnaire was 38% (1.1% low FCR, 2.9 High FCR) and they experienced a high level of fear. The relationship between FCR and life quality showed that people with high levels of fear have lower quality of life. (F(1,66)= 14.1, p<0.001). Also, people with high level of fear of relapse, experience general anxiety disorder and cancer-related distress. (p<0.001). Feeling of anxiety and discomfort caused limitations in performing daily, F (1.66) = 8.7, p <0.004), emotional (F (1.66) = 24, p <0.001), cognitive (F (1.66)) = 11.2, p <0.001) and social functions (F (1.66) = 22.9, p <0.001). Also, survivors with high FCR significantly had more problems with body image (F (1.70) = 13.7, p <0.001) and future prospects (F (1.70) = 39.6, p <0.001) compared to people with lower levels of FCR [7].

Henfer (2017) aimed at determining the prevalence of fear of colorectal cancer reversal or its progression (FOP / FCR) using the Fear of Progression Questionnaire (FOP-Q-SF), which indicated that 36% of patients were worried about the disease's relapse or its progression. In addition, FOP / FCR is correlated with fatigue side effects (r (53) = 0.0477, p <0.001, diarrhea (r (53) = 0.424, p <0.001), nausea (r (53) = 0.540, p <0.001) and vomiting (r (53) = 0.359, p <0.001). In this study, the level of fear of patients was moderate to high. The study found that people suffering from cancer are trying to convince themselves that everything is good or they think positively, find solutions and replace those thoughts with pleasurable ones. (39,36,32%). In this regard, the reported strategies to counteract this status consisted of prayer, meditation and attempts to distract thought or not to think about it (75.61.57%) [8].

Backer, in 2005, made use of CPILS(Cancer Problems in Living Scale) to show that 63.3% of patients with colorectal cancer are worried about the onset of illness and more than half of them are worried about the future and 37.5% felt vulnerability. See table No.1.



**Table 1. Research Methodology and Features** 

Author	Questionnai	Place	Sample size	Type of study	Publication date	results
Fisher A,et al.	PROMS	UK	10969	cross-sectional	2016	50% patient reported fear of their cancer returning.
Baker F, et al.	CPILS	USA	Total = 752 colorectal patient =65	cross-sectional	2005	63.3% of patients with colorectal cancer worried about the disease's return.
Hefner J ,et al.	FOP-Q-SF	Germany	58	prospective & descriptive	2017	(36%) patient suffered from FOP/I . Levels of FOP/FCR seemed to be mostly moderate to high.
José A. E. Custers, et al.	CWS	Netherland	211		2016	(38 %) patient with high levels of FCR, characterized by higher levels of distress, post-traumatic stress symptoms, lower quality of life.

#### Discussion

The aim of this study was to determine the frequency of fear of disease relapse and the effects of this fear on the life of patients and survivors of colorectal cancer. The results showed that differences in the scores of the individuals is an indication of fear of cancer relapse, which is in line with the other results [10]. Also, FCR was higher in women comparing with the men. Perhaps the reason lies in stereotypes. [11]. Also, the results of the study considering the relationship of FCR with age, showed that younger individuals are more afraid of disease relapse than the older ones. It seems that younger people have more expectations from life which is due to the social roles and the duties they have and they follow their treatment procedure seriously. In contrast, the older individuals are less expected and the time and the resources they have at their hand are less than the younger people[3]. Furthermore, the results of the study showed that



suburbanite were more afraid of cancer relapse. Perhaps, it is resulted from financial problems and lack of accession to treatment services. [3, 12]. Those individuals that have passed the early stages of the disease such as chemotherapy, developed more fear of the diseases which is consistent with the findings of the studies [13, 14]. In the present study, fear of cancer relapse is higher in smokers. This may be due to the extensive advertisements and advices in relation to the smoking and cancer by health care providers and specialists during the treatment procedure or before that, that are repeated for several times. Active patients expressed fewer fears of cancer. One of the strategies of third-party prevention and decelerating the reversal of symptoms of illness can be health promoting behaviors, including physical activities. [16] Active people have a better mental status and have greater power for dealing with the problems and may be less afraid of disease relapse. [17]. Based on the theory of Protection Motivation Theory, fear can affect the attitude and the behavior of the individual and it can motivate him to behave (18). The aim of the physical activities for cancer patients is to improve the quality of life, reduce its symptoms, including fatigue, depression and improvements in fitness indicators related to patient survival. [19]. In addition, patient's involvement in health care and their active role in treatment is very helpful. [20] This decrease shows itself in almost all aspects of the quality of life (emotional, social, etc.). Lack of familiarity with cancer and post-treatment measures, daily functions and activities in humans are reduced and fear of death and anxiety about the future create obsessive thoughts that can affect the health of these individuals [21-24]. It seems that it is the result of low self-efficacy. In addition, meditation and spirituality are effective in controlling anxiety. The enhancement of self-efficacy is important in confronting with cancer. This is due to the positive meaningful relationship between self-efficacy and life quality and the meaningful statistical relationship between self-efficacy and areas of quality of life including physical health, mental health, social relationships and environment satisfaction. [25] Health education can be beneficial to cancer patients. [26].

# **Conclusion**:

According to the findings, the patient's back illness can lead to physical and psychological damage and, in general, a decrease in the quality of life in them and disruption of the function. Therefore, physical activities, patient activation in the treatment process, palliative care that includes role management, treatment and symptoms, and training on ways to seek social support, lifestyle changes to control bad health conditions, and facilitating access to services in marginalized individuals to continue The life of this group of people is recommended and it is



better that with the help of informal observant of patients health interventions are conducted in this direction.

#### Limitations

A large number of articles are found with the intended key word and the evaluation became complicated for us. Other limitations were the lack of application of the same questionnaire to report the fear of relapse in the study.

#### **Refrences:**

- .1 Alteri R, et al., *Cancer Facts & Figures2016*. 2016, American Cancer Society, Inc.: 250 Williams Street, NW, Atlanta, Georgia.
- .2 Heins MJ, Korevaar JC, Rijken PM .For which health problems do cancer survivors visit their General Practitioner? *Eur J Cancer*, 2013. 49(1):211-8.
- .3 Simard S, Thewes B, HumphrisG, et al., Fear of cancer recurrence in adult cancer survivors: a systematic review of quantitative studies. *J Cancer Survive*, 2013. 7(3): p. 300-22.
- van de Wal M, Thewes B, Gielissen M, et al. Efficacy of Blended Cognitive Behavior Therapy for High Fear of Recurrence in Breast, Prostate, and Colorectal Cancer Survivors: The SWORD Study, a Randomized Controlled Trial. *J Clin Oncol*, 2017. **35**(19): p. 2173-2183.
- .5 Simard, S. and J. Savard, Screening and comorbidity of clinical levels of fear of cancer recurrence. *J Cancer Survive*, 2015. **9**(3): p. 481-91.
- .6 A Fisher 1, R J Beeken 1, M Heinrich., et al., Health behaviours and fear of cancer recurrence in 10 969 colorectal cancer (CRC) patients. *Psychooncology*, 2016. **25**(12): p. 1434-1440.
- .7 A E Custers J, F M Gielissen M, H V JanssenS, et al. Fear of cancer recurrence in colorectal cancer survivors. *Support Care Cancer*, 2016. **24**(2): p. 555-562.
- .8 Hefner J, Berberich S, Lanvers E, et al., New insights into frequency and contents of fear of cancer progression/recurrence (FOP/FCR) in outpatients with colorectal carcinoma (CRC) receiving oral capecitabine: a pilot study at a comprehensive cancer center. *Patient Prefer Adherence*, 2017. **11**: p. 1907-1914.
- .9 Baker F, Denniston M, Smith T, et al.Adult cancer survivors: how are they faring? *Cancer*. 2005. **104**: p. 2565-76.
- .10 M W Jones S, Ziebell R, WalkerR ,et al .Association of worry about cancer to benefit finding and functioning in long-term cancer survivors. *Support Care Cancer*, 2017. **25**(5): p. 1417-1422.
- .11 Vrinten C, van Jaarsveld CH, Waller J, et al., The structure and demographic correlates of cancer fear. *BMC Cancer*, 2014. **14**: p.597
- .12 Miles A, L McClements P, J C SteeleR, et al. Perceived diagnostic delay and cancer-related distress: a cross-sectional study of patients with colorectal cancer. *Psychooncology*, 2017. **26**(1): p. 29-36.



- .13 Tam Ashing K ,Cho D, Lai L, et al. Exploring characteristics, predictors, and consequences of fear of cancer recurrence among Asian-American breast cancer survivors. *Psychooncology*, 2017. **26**(12): p. 2253-2260.
- Allen S, Lowe D, V HarrisR ,et al. Is social inequality related to different patient concerns in routine oral cancer follow-up clinics? Eur Arch Otorhinolaryngol, 2017. **274**(1): p. 451-459.
- .15 Humphris, G.M. and S.N. Rogers, The association of cigarette smoking and anxiety, depression and fears of recurrence in patients following treatment of oral and oropharyngeal malignancy. *Eur J Cancer Care*, 2004. **13**(4): p. 328-35.
- .16 Piercy KL, Troiano RP, Ballard RM, et al. *The Physical Activity Guidelines for Americans*. *JAMA*, 2018. **320**(19): p. 2020-2028.
- .17 Ballard-Barbash R, Friedenreich CM, Courneya KS, et al. Physical activity, biomarkers, and disease outcomes in cancer survivors: a systematic review. *J Natl Cancer Inst*, 2012. **104**(11): p. 815-40.
- .18 Rogers, R.W., A Protection Motivation Theory of Fear Appeals and Attitude Changel. J *Psychol*, 1975. **91**(1): p. 93-114.
- .19 Kathryn H Schmitz, Kerry S Courneya, Charles Matthews, et al., American College of Sports Medicine roundtable on exercise guidelines for cancer survivors. *Med Sci Sports Exerc*, 2010. **43**(1): p. 1409-26.
- .20 Graffigna, G., Barello S, Bonanomi A. The role of Patient Health Engagement Model (PHE-model) in affecting patient activation and medication adherence: Astructural equation model. *PLoS One*, 2017. **12**(6): p. e0179865.
- .21 Denlinger CS, Barsevick AM, Barsevick .The challenges of colorectal cancer survivorship. *J Natl Compr Canc Netw.*, 2009. **7**(8): p. 883-93; quiz 894.
- Deckx L, van Abbema DL, van den Akker M.A cohort study on theevolution of psychosocial problems in older patients with breast or colorectal cancer: comparison with younger cancer patients and older primary care patients without cancer. *BMC Geriatr*, 2015. **15**: p. 79.
- Lynch BM, Steginga SK, Hawkes AL, et al. Describing and predicting psychological distress after colorectal cancer. *Cancer*, 2008. **112**(6): p. 1363-70.
- .24 Hawighorst-Knapstein, S,Claudia Fusshoeller, Cordula Franz, et al., The impact of treatment for genital cancer on quality of life and body image--results of a prospective longitudinal 10-year study. *Gynecol Oncol*, 2004. **94**(2): p. 398-403.
- 25. Kiaei MZ, Ferdosi M, Moradi R, et al., Association between self-efficacy and quality of life in women with breast cancer undergoing chemotherapy. Journal of Qazvin University of Medical Sciences (JQUMS), 2015. **20**(2): p. 58-65.
- .26 Changizi M, kaveh MH, hosseini S ,et al., *He Role Of Health Education In Cancer Prevention: A Systematic Review.* International Journal of Pharmacy and Technology, 2016. **8**(4): p. 24082-24099.



