



The Temporal Decline of Social Support among Colorectal Cancer Survivors: First Year Prospective Study

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Dear Editor-in-Chief

Colorectal cancer (CRC) is one of the most prevalent malignancies worldwide. The overall mortality for CRC has declined in recent years (1). However, CRC survivors often experience significant physical, emotional, and social changes following the diagnosis, treatment and treatment-related side effects (2). Social support is widely acknowledged as beneficial to cancer survivors (3). Previous studies investigating the social support level in cancer survivors were generally consistent to the conclusions that the majority of cancer survivors received high level of social support (4, 5). However, findings from most of these studies were based on cross-sectional study design and social support was measured at one or two time points only (usually at the time of initial detection and treatment). Until date, the changes in social support over time among CRC survivors after surgery were not well described. The lack of information hampered the efforts to suggest effective intervention strategies for this population. The present study was conducted to describe the level of social support and its predictors among Chinese CRC survivors during the first year post operation.

From Jan 2012 and July 2014, patients who were newly diagnosed with colorectal cancer and admitted for corrective surgery were consecutively recruited. Individual's satisfaction with available social support was assessed at the time prior to surgical operation (T1) through self-administered multidimensional scale of perceived social support (MSPSS). Additional four waves of assessments on social support were performed at 4-6 wk (T2), 3 months (T3), 6 months (T4) and 12 months (T5) during one-year follow-up period after surgery. Of 227 CRC survivors, the mean score of MSPSS were 68.5 ± 10.3 , 68.4 ± 10.9 , 65.1 ± 9.6 , 49.2 ± 6.8 and 48.6 ± 7.0 through T1 to T5, respectively. It remained relatively stable and high in the first three months post-surgery, but decreased significantly at 6 months and remained low afterwards, displaying an overall decreasing trend over time ($P < 0.01$). The score on the three subscales, including support from family, friends and significant others, displayed a similar trend to that of the total score, with slight variation from T1 to T3 and T4 to T5 but significant decrease was noted from T3 to T4. Mixed model analysis indicated a significant effect of time on MSPSS. The mean score on MSPSS at T4 and T5 were,

on average, 3.16 (95%CI: 2.58 to 3.74) and 3.18 (95%CI: 2.56 to 3.90) points lower than that at T1, respectively. There were no obvious changes of scores on MSPSS at T2 and T3 as comparison to that at T1. Moreover, female CRC survivors reported 1.71 (95%CI: 1.60 to 2.36) points lower levels of MSPSS than male survivors. The total family income showed a positive association with score on MSPSS over time, with higher score being observed in patients with higher income. Furthermore, compared to those with free medical care or other commercial health insurance, an average of 2.64 (95%CI: 2.16 to 3.12) points lower level of MSPSS was observed in patients being lack of any kind of health insurance or with basic medical care. In addition, patients with disease stage II or below scored 1.37 (95%CI: 0.65-2.09) points higher than those with disease stage III or above. Although CRC survivors received high level of social support at very earlier stage after surgery, they were likely to experience a significant decline at 6 months. Lower family income, lack of health insurance and female gender were negatively associated with social support over time. Besides, the future intervention programs should commence as much as 6 months post-surgery, despite the fact that it was high before this time point.

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References

1. Armando C, Bravo LE, Clin P, Garcia LS, Collazos P (2014). Colorectal cancer incidence, mortality and survival in Cali, Colombia, 1962-2012. *Salud Publica Mex*, 56(5):457-64.
2. Traa MJ, Braeken J, De Vries J, Roukema JA, Slooter GD, Crolla RM, et al. (2015). Sexual, marital, and general life functioning in couples coping with colorectal cancer: a dyadic study across time. *Psychooncology*, 24(9):1181-8.
3. Boinon D, Sultan S, Charles C, Stulz A, Guillemeau C, Delalogue S, et al. (2014). Changes in psychological adjustment over the course of treatment for breast cancer: the predictive role of social sharing and social support. *Psychooncology*, 23(3):291-8.
4. Fagundes CP, Bennett JM, Alfano CM, Glaser R, Povoski SP, Lipari AM, et al. (2012). Social support and socioeconomic status interact to predict Epstein-Barr virus latency in women awaiting diagnosis or newly diagnosed with breast cancer. *Health Psychol*, 31(1):11-9.
5. Faghani S, Rahmani A, Parizad N, Mohajjel-Aghdam AR, Hassankhani H, Mohammadpoorasl A (2014). Social support and its predictors among Iranian cancer survivors. *Asian Pac J Cancer Prev*, 15(22):9767-71.