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The role of the budget provided by non-government organization (NGO) in enhancement of cancer children' life expectancy

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Abstract
Background: Cancer is one of the main causes of mortality and disability worldwide, especially in developing countries. The most prevalent type of cancer among children is acute lymphoblastic leukemia (ALL). Given the increasing rates of ALL in children and the financial burden, this study aimed to investigate the role of the budget provided by non-governmental organizations (NGOs) in rising life expectancy in children with cancer.
Material and methods: This research was a descriptive-analytical study and performed on 30 children with ALL in Mohammad Rasool Allah charity (MAHAK branch) during 2017-2019. The Schneider life expectancy questionnaire was used to collect information. Data were completed by interviewing of children before and after accepting in charitable foundation.
Results: In current study, there was significant difference between the mean score of Schneider life expectancy before and after intervention ($p < 0.01$). In addition, assessment of life expectancy in individuals showed that after entering of participants to study, items such as "in my opinion, there are many ways to achieve the things that are important in my life", "I think there are many ways to get rid of the pressures and" there are many ways to solve the problem with score 135, 130 and 120 were higher than other items.
Conclusion: According to results of this study, it seems that the support of NGOs can improve life expectancy of children with cancer. Therefore, it is proposed that the role of NGOs is considered more than ever.
Key words: Cancer, Life expectancy, Non-governmental organizations

Introduction

Cancer is one of the main causes of mortality and disability worldwide, especially in developing countries. This disease occurs due to interaction of endogenous and exogenous, and genetic susceptibility (2-4). Smoking, obesity, impulsivity, unhealthy nutrition, water, air and food pollution, chronic viral infections and environmental pollutants are the main risk factors for the occurrence of various types of cancers (1-3). The most prevalent type of cancer among children is acute lymphoblastic leukemia (ALL) (2, 3). The incidence peak of ALL in children is in age range of 2-5 years old. Annually, 175,000 new cases of cancer are diagnosed in children less than 15 years of age. Moreover, about 6000 new cases of ALL are diagnosed annually in the United States (2-7). Studies have shown that parents of children with cancer need physical, emotional, and economic care (4, 8). In addition, physical and psychological complications including fatigue, depression, anxiety, and disappointment have been observed in family of cancer children (10). Furthermore, parents of cancer children experience burden of care due to these conditions (4). In many cases, the burden of caring for children appears to be increasing to the extent that the mental health of parents is impaired affecting their quality of life (9). Moreover non-governmental organizations (NGOs) are non-profit groups that act independently of government. They are task-oriented and driven by people with a common interest. In other words, NGO is an entity which was formed by a group of

natural or legal persons and non-political persons. The balance between government and citizen's discourse is dominated only in the presence of NGOs. They are also considered as citizens and community voices. Four distinctive features of NGOs are voluntariness, independence from government, non-profit service, and providing services to people. These features have led NGOs to be perceived as "independent voice. Increasing public awareness, attracting support from investors and policy makers, as well as creating inter-institutional coordination improve lifestyle reduce risk behaviors and have a strategic importance in the fight against cancer. NGOs are financially independent and do not use public funds, while pursuing great goals.

NGOs dedicated to treat children with cancer, including the Mohammad Rasool Allah charity, based in Yazd and the Mahak Society for supporting children with cancer have a significant role in promoting community health (11-14). Given that pediatric cancer including ALL is increasing in Iran (4) and the role of NGOs in the treatment and rising life expectancy among children with cancer was not known, the aim of current study was to evaluate the role of the role of the budget provided by NGOs in rising life expectancy of children with cancer.

Materials and Methods

This study was a descriptive-analytical study and performed in Mohammad Rasool Allah charity (MAHAK charity as a NGO is dedicated to helping Iranian children with cancer. These charitable organizations are funded through fundraising, public contributions, Waqf, cash and noncash gifts, and so on) to assess the role of the budget provided by NGOs in the treatment and rising life expectancy among children with cancer. The statistical population was consisted of 30 children with cancer aged 12-17 years old and mean age 15.5 years old.

Inclusion criteria were participants' willingness to participate in the study, being able to read and write, and absence of psychological disorders. The only exclusion criterion was unwillingness to participate in the study.

Data were completed by interviewing children with ALL before and 6 months after accepting in charitable foundation (before and after intervention).

The Schneider life expectancy questionnaire was used to collect information. Schneider's life expectancy questionnaire includes 12 items, including

1. I think there are many ways to get rid of the pressures.
2. I have a lot of energy to reach my goal
3. I often feel tired
4. There are many ways to solve the problem.
5. I easily come up with a short argument.
6. In my opinion, there are many ways to achieve the things that are important in my life.
7. I'm worried about my health.
8. I know I can find a solution to any problem.
9. My past experiences are good for my future
10. I've had a lot of success in my life
11. I usually find myself worrying about some things
12. I achieve all my goals

It was scored using 5 point Likert scale, completely disagree [1], disagree [2], have no idea [3], agree [4], completely agree [5]. But this way of scoring for questions 3, 7 and 11 is reversed. The range of total scores was 12-60. Mohammadi et al., performed a study in Iran on and evaluated the reliability of this scale using Cronbach's alpha and reported Cronbach's alpha of 0.89 (15).

Results

Current study was conducted on 30 children with ALL referred to MAHAK institution. Schneider questionnaire was provided for them. The score of life expectancy in individuals was assessed

before and after intervention in children. Assessment of life expectancy in individuals (Table 1) showed that after entering of individuals to participate of study, items such as 1, 4 and 6 were increased more than other items. Comparison of life expectancy score before and after intervention in individuals showed that there was significant difference before and after intervention, regarding life expectancy score (paired T test) ($p<0.01$).

Table I: Assessment of life expectancy in participants

Number	Question	Score	
		Before	After
1	I think there are many ways to get rid of the pressures	50	130
2	I have a lot of energy to reach my goal	37	99
3	I often feel tired	52	95
4	There are many ways to solve the problem	35	120
5	I easily come up with a short argument	40	45
6	In my opinion, there are many ways to achieve the things that are important in my life	30	135
7	I'm worried about my health	30	98
8	I know I can find a solution to any problem	54	99
9	My past experiences are good for my future	94	89
10	I've had a lot of success in my life	30	96
11	I usually find myself worrying about some things	35	87
12	I achieve all my goals	30	100
13	Total	517	1193

Discussion

NGOs have different names in world, including charitable organizations, voluntary organizations, non-profit organizations and community-based organizations (12). These organizations, volunteering, independent of the government, serve the people and hence are called the voice of people. In addition, they as altruistic groups influence public policy (13) and are main players in social development (14). They influence civil society in various ways. Nevertheless, assessment of their projects and programs are rare (13). Some governments support NGOs development projects, because NGOs may have an experience to help education, rural development, community development health care and agriculture (14). Since NGOs are smaller than governments, they may be more efficient

in decision-making and service delivery (11).

NGOs are also the hidden system of community health promotion and work with primary health care via promoting dialogue within and among NGOs, sustaining dialogue with governmental authorities, providing data and creating new ways for illustrating primary health care and strengthening methods of communication. Furthermore, NGOs may contribute to primary health care via program implementation, including providing assistance to develop local NGOs activities and developing health care in human development (11).

However, very few studies were conducted regarding the role of NGOs in health in world. Some NGOs act internationally and were concerned about global health issues. Other NGOs played a main role to provide health care at emergency time and natural disasters. In our study, we used the role of NGOs in the treatment and rising life expectancy of children with cancer and observed rising life expectancy. Nimai et al., assessed the role of NGOs in healthcare sector of India. They reported that this research is the first study to assess the health expenditure in this area. According to these findings, 60 % of NGOs operates in in health sector. Moreover, they reported that among purpose of NGOs, 31% was assigned to HIV/AIDS, 29 % health system management and 18 % programs related to RMNCH. Other special applications included TB control (6 %), specified fevers including malaria and dengue (5%), particular programs for tribes (3%) and programs for disabled individuals (4 %) (12). Parashar et al., conducted a study for evaluation of NGOs for controlling of cancer and reported that NGOs plays a main role for controlling of cancer and helping bridge the gap for care of cancer in any countries (16). Grey et al., also reported that NGOs can support prevention and control of cancer (17).

In addition, our study was conducted in MAHAK, Yazd province assigned to help children with cancer. Most these institutions in our country are in urban areas, however, these non-governmental organizations in India are in rural and urban regions with focus of providing preventive, curative and rehabilitative care services via the established healthcare institutions and health camps in targeted regions (12).

Conclusion

According to results of this study, it seems that the support of NGOs can improve life expectancy of children with cancer. Therefore, it is proposed that the role of NGOs is considered more than ever.

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Conflict of interest

Authors declared no conflict of interest.

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