





RESEARCH ARTICLE

The role of gratitude on stress and psychological wellbeing among parents of children with cancer in Aceh

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ABSTRACT

Cancer is a disease with a high incidence that pediatric patients need parents during treatment. The situation became a source of stress for parents. One way to deal with stress is to be grateful that the psychological wellbeing of the caregivers who accompany children with cancer is maintained. This study aims to determine the relationship between stress and psychological wellbeing with the moderation of gratitude in the parents of children with cancer in Aceh. This study used a quantitative approach, involving 14 participants at the shelter for children with cancer undergoing treatment in Banda Aceh aged 20–40 years. Participants were selected using the non-probability sampling method and the incidental sampling technique. Individual stress levels were measured using the Perceived Stress Scale, wellbeing using the Warwick-Edinburgh Mental Wellbeing Scale, and gratitude using the Indonesian Grateful Scale. The data were analyzed using the Rank Spearman nonparametric test, showing no relationship between stress and psychological wellbeing, but there is a relationship between stress and gratitude and gratitude with psychological wellbeing. This result shows partially that gratitude has a relationship with stress and psychological wellbeing. It means that with gratitude, stress can be controlled and impacts the psychological wellbeing of parents accompanying children with cancer.

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INTRODUCTION

Chronic disease, such as cancer, is a disease that all groups of ages, different economies, and different cultures can suffer. Cancer is a disease that causes the most deaths in the world. This disease affected around 300,000 children aged 0–19 years in the period 2001–2010 worldwide (Steliarova-Foucher, 2017). WHO data says 8.2 million people die each year. In Indonesia, the cancer that attacks children every year has increased. In 2017, there were 4100 cases of cancer among children in Indonesia. Currently, the problem of cancer in children in Indonesia is quite extensive. The prevalence of cancer in children aged 0–14 years in Indonesia has reached 16,291 cases. The logical epidemic survey recorded that 131 out of every 100,000 children are in danger of losing their lives due to cancer.

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The types of cancer most commonly suffered by Indonesian children are leukemia and retinoblastoma (Riset Kesehatan Dasar [RISKESDAS], 2013).

Chronic disease can reduce, even to the point of eliminating, the function of body organs, such as the brain, which experiences decreased cognitive processes, stiff limbs, or impaired function of vital organs. Chronic illness usually lasts for a long time and requires lifelong treatment. Studies in epidemiology show that one in 10 children under 15 years of age has a chronic disease, while other studies have stated that one in three children under 18 has a chronic disease (Harrington et al., 2006; Costello et al., 2006; Gallasi et al., 2006). Children who suffer from cancer may experience physical disabilities, mental disorders, and impaired social functioning as a result of the cancer's malignancy and the side effects of treatment. The treatment process has several impacts on their physical, emotional, and social development (Lambrini, Christos, Alexandros, & Aikaterini, 2015).

In Indonesia, the prevalence of cancer is rather high in infants (0.3‰), increases at age ≥ 15 years, and the highest at age ≥ 75 years (5‰). According to National Health Research (RISKESDAS, 2013; 2018), there was an increase from 1.4‰ population in 2013 to 1.79‰ population in 2018. These results also show the prevalence of cancer in Aceh is slightly higher than the national (2013–2018) evaluation. The 2018 Riskesdas results also show that the average cancer patient has undergone treatment with surgery (61.8%), radiation (17.3%), chemotherapy (24.9%), and others (24.1%). This treatment often faces problems because it has to be done at a type A hospital, which already has equipment for radiation, chemotherapy, and comprehensive surgery. In Aceh, this hospital is only found in the provincial capital, namely Zainal Abidin General Hospital (RSUZA) Banda Aceh.

Based on an initial survey, substantial obstacles felt were the absence of a place to stay during treatment, limitations in living costs, and transportation for patients and their families. The cost of treatment is not too much of a burden because the government has born it through Indonesian Health Insurance. The treatment was also carried out on a prolonged basis, so the patient had to return from his hometown to RSUZA. Following up on this condition, C-Four Aceh tried to facilitate by providing temporary housing, food, assistance, transportation costs from their hometowns, and shuttle vehicles from shelters to RSUZA. C-Four Aceh is a Children's Cancer Care Community founded to help families outside Banda Aceh who bring their children with cancer to undergo hospital treatment.

This research is important considering that the main source of success in treatment comes from the medical side and the existing positive resources. In this case, parents are the main factor in the success of children undergoing treatment and post-therapy. Counseling or psychological reinforcement for children is also very important during the treatment period and helps the healing process, but different things are seen in children with cancer, where the mood is unstable, quieter, more withdrawn, and there are anxious facial expressions. This is in accordance with reports by Ruland (2009) and Mavrides (2014), which stated that children tend to show more complex symptoms than adults, including psychological symptoms. Psychological conditions also have an impact on families, such as feelings of depression, especially in advanced cancer cases (Rosenberg, 2013); therefore, in order to get adequate treatment, the bonding between patients and families must continue to run harmoniously and synergistically. The mother's role is also the most dominant compared to the father's to help and strengthen their children (Rosenberg et al., 2013; Hasoda, 2014; Burns et al., 2018).

The appearance of a disease in family members can cause many changes in the family structure. Cancer experienced by children has impacts on families, especially parents of children (Lähteenmäki, Sjöblom, Korhonen, & Salmi, 2004; Wong & Chan, 2006; Awasthi & Kuhu, 2017; LeSeure & Chongkham-Ang, 2015). The cancer diagnosis, apart from affecting the patient, also affects the closest

people and relatives, especially when necessary treatment is needed for the patient. Grunfeld et al. (2004), in their research on Family Caregiver Burden with breast cancer, stated that caregivers experienced depression as much as 30% and anxiety as 35%. Feeling overwhelmed is a major predictor of feelings of anxiety and depression. Another study regarding coping strategies in family caregivers of kidney failure patients found that family caregivers experienced various internal and external demands that caused stress (Agustina & Dewi, 2013).

Several studies have shown that stress symptoms that often occur in older people with cancer include anxiety, difficulty concentrating, feelings of guilt, pessimism, sadness, post-traumatic disorders, and sleep disorders. Some stressors occur for parents or caregivers of children with cancer, including costs, expenses, work, time spent on treatment, and energy spent caring for a child with cancer. One of the problems that can arise in children with cancer is telling the child about the diagnosis, therapy, and prognosis of cancer.

In general, parents are the main source of helpers in the care process, apart from health professionals. Recent studies showed that the psychological aspects of parents who have children with chronic illnesses are emotional, social, parenting impact, stress, depression, quality of life, fatigue, and mood. Based on the description above, this study proposes the hypothesis that there is a relationship between stress and wellbeing through moderation of gratitude in parents of children with cancer in Aceh.

METHOD

The variables in this study are stress, psychological wellbeing, and gratitude as a moderating variable. Cohen et al. (1983) explained that stress levels can be seen from individual perceptions of stress (perceived stress). The concept of mental wellbeing was developed by Tennant et al. (2007) as a concept of positive mental health and a complex construct, which refers to the concept of Ryan and Deci in 2001. Listiyandini et al. (2015) describe gratitude as gratitude, pleasure, and individual respect for something obtained from God, humans, other creatures, and the universe throughout his life and encourage him to do things as he gets them.

The study design was a cross-sectional study conducted in Banda Aceh. The study population consisted of parents of children and adolescents with cancer undergoing treatment in Banda Aceh. Participants were selected using the non-probability sampling method and the incidental sampling technique. Parents who met the following criteria were eligible to participate in the study: a) Parents with a child diagnosed with any type of cancer and attending for his or her treatment either in a pediatric oncology ward or attending follow-up pediatric oncology in a hospital in Banda Aceh; b) Parents should be able to speak, understand, read, and write in Bahasa; and c) Stay in a home shelter along with treatment in Banda Aceh. Parents were excluded if they were parents of a dying child or had a life expectancy of only a few weeks. The research subjects consisted of 14 caregivers of children and adolescents in a shelter house for children with cancer who were attending treatment in Banda Aceh. Parents were informed about the study and invited to participate during their stay at the halfway house for chemotherapy. Parents signed consent as a form of participatory consent.

For data collection, participants answered the Indonesian version of the three questionnaires, demographic and characteristics checklist questionnaires. Stress levels were measured using the Perceived Stress Scale (PSS) developed by Cohen et al. (1983), which was adapted by Manita et al. (2019) with strong reliability ($\alpha = .804$). Wellbeing was measured using the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) developed by Tennant et al. (2007), with strong reliability ($\alpha = .874$), and gratitude was measured using the Indonesian Grateful Scale developed by Listiyandini et al. (2015),

with strong reliability ($\alpha = .904$). Following are the item samples from each questionnaire used in the Perceived Stress Scale (“In the past month, how often have you felt that you were out of control of the important things in your life?”, “in the last month, how often did you feel that things were going your way?” and “In the past month, how often have you found yourself unable to cope with all the things that needed to be done?”); and the Warwick-Edinburgh Mental Wellbeing Scale (“I have a lot of energy,” “I handle problems well,” and “I can decide for myself about many things.”) and Grateful Scale (“I feel loved by the people around me,” “I think that the difficulties in life will bring me down,” and “when I look at the faces of family members, I realize how precious it is to have them”).

The research uses moderated regression analysis to determine whether a relationship between stress and wellbeing is moderated by gratitude. Previously, researchers also conducted assumption tests consisting of normality, linearity, homoscedasticity, and multicollinearity tests.

RESULT

Table 1. The Demographic of participants (n=14)

Category	n (%)
Parents' age (year)	
30-39	6 (42.9%)
40-49	7 (50.0%)
60-69	1 (7.1%)
Gender of parents	
Male	6 (42.9%)
Female	8 (57.1%)
Parents' Occupation	
Housewife	8 (57.1%)
Farmer	5 (35.7%)
Entrepreneur	1 (7.1%)
Children's age (year)	
<5	5 (35.7%)
6-10	3 (21.5%)
11-15	5 (35.7%)
16-20	1 (7.1%)
Gender of children	
Male	4 (28.6%)
Female	10 (71.4%)
Children's disease history	
Heart	1 (7.1%)
Lymphoma	2 (14.3%)
Retina Blastoma	1 (7.1%)
Nose Tumors	1 (7.1%)
Leukemia	4 (28.6%)
Aplastic Anemia	1 (7.1%)
Blood Vessel Tumors	1 (7.1%)
Kidney Tumors	2 (14.3%)
Leaking Kidney	1 (7.1%)

The assumption test carried out includes the normality, linearity, homoscedasticity, and multicollinearity tests using the SPSS program. The results of the assumption test show that the data are not normally distributed and that there is no linear relationship between the variables of stress, wellbeing, and gratitude. The results of the homoscedasticity test showed that the scattered points did not experience heteroscedasticity, and the multicollinearity test showed no correlation between the independent variables. Based on the assumption test that was not met, the data were analyzed using the Rank Spearman nonparametric test.

The result showed that there is no relationship between stress and psychological wellbeing ($r = .021, p < .05$), but there is a correlation between stress and gratitude ($r = .306, p > .05$) and gratitude

with psychological wellbeing ($r = .511$; $p > .05$). This result shows partially that gratitude has a relationship with stress and psychological wellbeing.

DISCUSSION

Children with chronic diseases such as cancer face different challenges daily than healthy children. In addition to physical growth problems that are not the same as those of other children their age, these children also experience slowed mental development. Deal with illness, not only children experience psychological problems; parents often feel alone in struggling to deal with persistent and various stresses.

This study's results indicate no relationship between stress and psychological wellbeing, but there is a relationship between gratitude and stress, gratitude and psychological-wellbeing. This means that gratitude plays a role in stress management, which brings a sense of psychological wellbeing. The results of this study are supported by previous research by Nezelek et al. (2018), who found that wellbeing is related to daily stress, which affects psychological wellbeing, and vice versa. Ryff (in Ulfa, 2018) also states that many things can affect a person's psychological wellbeing, one of which is distress or the type of stress that affects a person negatively. This study explains that gratitude can be a buffer from the effects of stress.

This study quite differs from research conducted by Zarbova and Karabeliova (2018), who found a negative relationship between stress and wellbeing. Furthermore, Wijaya's research (2017) also found a negative and significant role for subjective wellbeing in stress. This difference in results is thought to be caused by different contexts and sources of stress in the situation of parents with children with cancer. The duration of the child's illness can build resilience in parents, so stress management is better than stressful situations with a short duration.

There are at least four situations in which stressors can be varied over time: at the time of diagnosis, during the transition to disease progression, matters relating to the child's health care needs, and when the child has a recurrence of the disease and requires hospitalization. The stress will increase and affect the psychological wellbeing of parents during the child's treatment process. This study found that gratitude contributes to the stress and psychological health of parents who accompany children with cancer. Various things can be a source of stress or a cause of stress for each individual. The sources of stress are numerous and very individual. Things that can cause stress also depend on the individual's perception of something experienced (Segal, Smith, Segel, & Robinson, 2019). Most individuals experience stress at some point in their lives; some experience it more often than others, and some have difficulty dealing with its effects (Loseby, 2019).

Several studies have examined gratitude's impact on psychological health. Individuals who have gratitude can indicate the extent to which they feel happy in terms of how grateful they are for their lives (Watskin et al., 2003). Besides, Peterson & Seligman (2004) also stated that gratitude is an expression of gratitude from an individual who gets a good response from other people's gifts, whether they are real or peaceful for the individual. Likewise, Emmons & Tsang (2002) argue that grateful individuals show positive attitudes and are more generous, empathetic towards others, and willing to help others. Being grateful makes individuals more prosperous, optimistic, and satisfied (Froh, 2010).

CONCLUSION

The results of this study indicate that gratitude has contributed partially to stress and psychological wellbeing in parents of children with cancer. Stress levels may not be directly related to psychological

wellbeing, but gratitude can contribute to lower stress and psychological wellbeing increases. This research adds to the empirical references regarding positive psychology studies in clinical settings and can be studied further with similar settings and a larger or wider number of participants.

DECLARATION

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Author contribution statement

Marty Mawarpury contributed to conceptualization, instrument validation, data curation, review, analysis, writing and preparation for the publication. Diana Setya Ningsih contributed to the conceptualization, design of methodology, conducting and investigation process, validation, review, and supervision. Sri Rezeki contributed to conceptualization, conducting an investigation, analysis, and writing.

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Data access statement

The data described in this article can be accessed by contacting the authors.

Declaration of interest's statement

The author declares no conflict of interest.

Additional information

No additional information is available for this paper.

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