

The Experience of Cancer Patient in Traditional Medicine in Hospital

Solikin Solikin, Indra Budi, Nursalam Nursalam

Abstract--- Indonesian have a diversity of tribes and cultures that have a great interest in their communities in relation to life, including using traditional medicine as an effort to overcome their health problems. The study aimed to explain how the experience of cancer patients treated in hospitals using traditional medicine. A descriptive qualitative was conducted for this research. Data collected by in-depth interviews. Participants were used as 26 people with cancer who used traditional medicine as a supplement during treatment in Hospital. The results of the study found 8 themes, namely (1) Knowledge of Cancer (2) First time seeking treatment (3) Sources found a diagnosis of Ca (4) Types of Treatment (5) Support obtained from Traditional Medicine (6) beliefs will healing (7) Changes received during traditional medicine (8) Psychological response when first diagnosed with cancer. The experience of participants in the use of traditional medicine as complementary therapy has a good effect for patients. The most difficult experience of participants is to accept the current conditions, so the psychological condition of the participants needs to be considered.

Keywords--- Cancer, Experience, Traditional Medicine

I. INTRODUCTION

Nowadays, the health world is worried by the increasing number of cancer sufferers every year while the treatment of these diseases still not optimal. So, it becomes one of the main problems in the world of health [1]. Based on data from the International Agency for Research on Cancer (IARC) the number of cancer sufferers in the world was 14,067,894 people and the case of death reached 8,201,575 (58.9%) [2]. Health Research and Development Agency (Balitbang) Ministry of Health of the Republic of Indonesia in 2013 state that cancer sufferers reached 347,792 people while it increased 74.1% from previous year. South Kalimantan become the province that has high cases, while for cancer sufferers amounted to 6,145 people [3].

The increasing number of cancer sufferers shows that this disease is not only a problem in Banjarmasin but has become an international health problem. This is because of the high number of cancer sufferers greatly contributes to the high morbidity and mortality rate and affects the quality of life of sufferers [4],[5]. High mortality case is caused by abnormal cell growth occurs with a growth rate that is continuous, uncontrolled, can change shape and metastases, so cell of cancer can make problem in another organ [6].

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Cancer patients who are hospitalized must undergo a series of treatments and treatments that are quite a lot and seem long-lasting and require no small cost. Treatments that are often carried out by cancer sufferers include surgery, radiotherapy, chemotherapy, and other supportive treatments [7],[8]. The results of field observations show that there are often situations where cancer sufferers feel bored and the results of the treatment are felt to be less than optimal compared to the time the patient has taken and the costs incurred during hospitalization. This then encourages them to look for other alternative treatments, one of which is a traditional medicine to accompany modern medicine in achieving a cure better known as a complementary therapy [9],[10].

Cancer patients who use traditional medicine as complementary therapy are largely not supported by health workers because the process of treatment and care that has been given [9]. This situation will lead to conflicts that will affect perceptions and beliefs for each party which results in the disharmony of the relationship between cancer patients and health workers in the process of providing treatment [11]. The results of a preliminary study conducted at the Hospital, by means of in-depth interviews with 12 cancer patients who use traditional medicine as a complementary therapy stated that using traditional medicine because they believe that the treatment can help the healing process of the disease being suffered even though currently undergoing treatment at the hospital [10].

It is important to know the experience of traditional medicine perceived by cancer sufferers, what is done and why to choose traditional treatment. So, the question of this research is how the experience of cancer patients is treated in hospitals using traditional medicine.

II. LITERATURE REVIEW

The literature review of this study was conducted about the qualitative design for cancer patient use traditional medicine for therapy in cancer. They believe that used traditional medicine is better than come to health facility, such as doctors, nurses, hospitals and others. Patient will go to health facility if they fell worse condition, and start to receive a treatment [4]. Cancer patients who use traditional medicine as complementary therapy are largely not supported by health workers who have provided treatment and care while in the hospital because they are thought to hamper the process of treatment and care that has been given. This situation will lead to conflicts that will affect perceptions and beliefs for each party which results in the disharmony of the relationship between cancer patients and health workers in the process of providing treatment [7],[8]. The previous research conducted about the most important culture relation to disease treatment explained that the diversity of cultural values is very influential on public health behavior and if it is ignored by health workers it will lead to cultural shock [9]. This results of the study reinforced by other study that in the process of providing nursing services for cancer patients aiming to improve the quality of life, nurses must pay attention to cultural factors because it affects the aspects of hope, health and healing of disease [10].

Based on that previous research, preliminary study had conducted to get data and information. The results of a preliminary study conducted at the Hospital, by means of in-depth interviews with 12 cancer patients who use traditional medicine as a complementary therapy stated that using traditional medicine because they believe that the treatment can help the healing process of the disease being suffered even though currently undergoing treatment at the hospital. Most of patient stated that traditional medicine was important thing and it should try first before taking a medicine or checking their condition to health facilities. Even more many of the literature showed that traditional medicine was important and based on cultural in community, but they not yet conducted and got depth information.

III. DATA COLLECTION

This study used a qualitative research approach with a phenomenological design to explore deeply the experiences of cancer sufferers in using traditional medicine as a complementary therapy when they are hospitalized. The determination of participants in this study used a purposive sampling technique, which included 26 cancer patients who had or were currently using traditional medicine as a complementary therapy. Researchers collected data through in-depth interviews and document methods. Research techniques using Colaizzi analysis techniques. The study protocol was approved by the Ethical Commission of Ulin General Hospital, Banjarmasin, South Kalimantan on January 2nd, 2019. The number of certificate was 003/S2-Keperawatan/Diklit/RSUDU/I/2019.

IV. DATA ANALYSIS

Participants in this study were cancer sufferers consisting of 14 men and 12 women, with the youngest age 26 years and the oldest age 56 years. The lowest level of education is junior high school and the highest is the bachelor's degree. Most ethnic groups are dominated by Banjar tribes, with total 19 people.

Based on in-depth interview in this qualitative study, we found some themes from statement of participants, the theme is:

Theme 1: Knowledge of Cancer.

Theme 2: First time seeking treatment.

Theme 3: The source knows the diagnosis of cancer.

Theme 4: Types of Traditional Medicine.

Theme 5: Other people's support in traditional medicine.

Theme 6: Confidence in healing.

Theme 7: Changes obtained during the use of traditional medicine.

Theme 8: Psychological response when first diagnosed with cancer.

V. STUDY RESULTS, SUMMARY AND CONTRIBUTION

Knowledge of Cancer

Participant's knowledge of this study about the causes, signs and symptoms of the cancer are very minimal. This is due to a lack of education or information provided by health workers about cancer when they first diagnosed confirmation, so patients do not get enough information about disease. This result is appropriate from previous study in diabetes mellitus patient, that gave statement the delay in seeking treatment to health services in patients with diabetes mellitus is influenced by the lack of knowledge of patients and families in recognizing the signs and symptoms of the disease [12].

Good knowledge of cancer can encourage sufferers and families change their behavior to healthy lives and make efforts to optimize the degree of health, including finding information that they need. This is supported by previous research in Malaria patient, which state that the better value of good knowledge will influence attitudes and behaviors towards health care. Behavior that is based on knowledge provides the greatest contribution to improving the health status of the community [13],[14].

First Time Seeking Treatment

Most participants revealed that they first went to non-medical treatment rather than medical treatment to seek treatment. This is based on the lack of funds for treatment, distrust of medical diagnosis, and fear of surgery treatment. This result is in line with Pipit's research which mentions that people in Nagari Suayan believe in going to a traditional healer rather than a doctor because they prefer to treat using natural plants which are caused minimal side effects than chemicals medicine [9]. The result also in line with Sudoyo research that state cancer patients prefer traditional treatments such as herbs medicine, because it does not cause unpleasant effects of treatment such as nausea, vomiting, alopecia, and other effects of chemotherapy [15],[16].

Source of Knowing Cancer Diagnosis

Most participants in looking for test of the cancer's diagnosis to non-medical personnel rather than medical personnel, because of community cultural They come to traditional medicine often because of the information they get from neighbors or the closest people who have succed traditional medicine. This study is consistent with previous research which states that people who use traditional medicine are influenced by various things, one of which is the source of information both from external and internal families [17].

Types of Traditional Medicine

Traditional medicine types to treatment patient are herbs, religious and supernatural approaches. Types of herbs are white turmeric extract, Dayak onion tuber, soursop leaf parasite, betel leaf and cherry leaf (cherry). For treatment with a religious approach, the participants used water that had been given readings or prayers by Alim Ulama, one of moeslem public figure. While treatment with the supernatural has correlation with person who are believed to have special abilities. This is supported by the results of previous research that showed white turmeric as one of the ingredients makes herbal medicine can improve the health conditions and 79.6% improved the quality of life in cancer patients. This is caused by the content of white turmeric which is rich in anti-cancer substances, anti-inflammatory, analgesic, antibiotics and vitamins that can enhance the immune system [18].

The use of Dayak bulbs is believed to overcome digestive disorders such as nausea, vomiting, and lack of appetite. The high content of bioactive compounds in Dayak tubers in the form of phenols, flavonoids and their derivatives has a preventive effect on various diseases, one of which is ulcerative colitis [19]. Participant also used the parasite boiled water as a companion to therapy. This was revealed because participants felt the effects of drinking boiled mist can help them to return to normal activities like before get illness. This is supported by research about parasit plant that showed mango parasites, jackfruit parasites and tea parasites can be used as chemopreventive agents because quercetin flavonoid compounds contained in the three parasites have anti-tumor properties [20].

Other participants stated that while consuming soursop leaf decoction can make their health better than before. This is in accordance with states that the use of soursop leaf extract in breast cancer patients can improve their quality of life. This is due to the CHCl_3 content of acetyl acetate extract which is an extract of soursop leaves can kill breast cancer cells [21]. In another study, People of Borneo explained that boiled water of cherry leaves can overcome pain [22]. Boiled water cherries in patients with Gout disease can overcome pain due to high uric acid in the blood [23].

Second type of traditional medicine used by participant is a traditional water treatment that has been read prayers, they state it can make their illnesses reduced. In Moeslem, we have known more about healing diseases with prayer water or called ruqyah water. Ruqyah water is one alternative treatment that is still believed to be hereditary by Indonesian people in general. Based on this, the use of herbs and religious approaches (ruqyah water) as traditional medicine can be justified and has a scientific basis that supports and benefits people using it. This is supported by the theory of Leininger stating that if a community or individual uses traditional medicine with a cultural background and the treatment does not deviate, then it needs to be preserved,

as long as it has a strong evidence base practice and can be accounted, protected or maintained (cultural care preservation or maintenance).

Support of Other People in Traditional Medicine

Individuals are a part of a family, it mean that family support can strengthen bonds between individuals, increasing self-esteem, and primary prevention strategy in facing the challenges of daily life [24],[25],[26]. Forms of family support provided of emotional support, information support, instrumental/ material support and appreciation support [27].

Emotional support is an effort in creating an atmosphere of the family environment so that it becomes a safe and peaceful place, Especially in individuals with psychological or emotional disorders [3],[28]. Therefore, to maintain the functioning of the family system as a whole, the family must provide emotional support so that they can control emotions to developing adaptive individuals coping.

Information support is a form of information provider support needed by family members for the problem they are experiencing. This form of support can be in the form of family efforts in finding sources of information related to the disease and the type of treatment needed in accordance with the conditions being suffered by participants [27]. Instrumental or material support is a form of support provided in meeting the needs needed by family members such as efforts to provide medical expenses, including finances. The family tried to find sources of income in an effort to provide facilities needed by participants [8],[29]. Award (assessment) support is an action taken by the family in providing feedback, guiding and mediating problem-solving and being a validator of family identity. This support can be in the form of appreciation or appreciation given to family members for their efforts in overcoming the problems they are facing [10],[30].

In addition to family support, participants also received support from people around them, neighbors, colleagues and the community, including fellow cancer sufferers. This form of support is known as social support. Social support has two types, Appraisal Support and Tangible Support [30],[31],[32]. Appraisal Support is social support in the form of giving advice related to solving a problem that is being faced by individuals. Whereas Tangible Support is social support in the form of tangible assistance in the form of actions or physical assistance in solving problems [32].

Confidence in Healing

Most participants believe that using traditional medicine as a complementary therapy can make them survive or prevent worse condition (palliative). Participants' confidence in the use of traditional medicine as a support of medical treatment because this treatment without side effects. This therapy has been proven from the people who first used it and is a tradition handed down by their ancestors. They assume that the use of traditional medicine as complementary therapy does not conflict with their beliefs. This is having related with the reasons for choosing traditional medicine in Nagari Talaok as a treatment facility are (1) more effective, natural and low cost, (2) does not cause side effects, (3) belief and trust, (4) hereditary traditions [33].

Changes Obtained in the Use of Traditional Medicine

Participants felt changes in their body during the use of traditional treatments. Traditional medicine can be a supporter of medical therapy (complementary) that can reduce the pain before and after using traditional medicine. Besides improving health conditions as recognized by other participants that the use of traditional medicine as a companion to medical therapy is very helpful in improving their health. They revealed that weight gain, increased appetite and being able to sit longer than before using traditional medicine as a complementary therapy.

Psychological Response when First Diagnosed with Cancer

Most participants claimed to be sad and depressed when they were first diagnosed with cancer. The response of participant experienced average get surprise, and some even said he had given up in their life. This happened because they had good behavior in health, but they shocked when the first diagnosed was confirmation, so that they could not be trusted with cancer

[34],[35]. Some related studies show in patients when first diagnosed with breast cancer, it made their in stress condition, a sense of uncertainty about their health status, anxiety and depression. Patient anxiety, when diagnosed with cancer, can occur before and after being diagnosed with cancer which is influenced by several factors including the characteristics of the level of education [34],[35].

The results of other studies indicate that at a young people have higher anxiety than older people above 50 years and also patients with high level of knowledge and education have lower levels of anxiety, because they have more experience [34]. Someone who is diagnosed with cancer usually experiences emotional distress starting from anxiety, depression and shock. From this study, there are also participant who feel a sense of hopelessness when they are diagnosed with cancer. This is supported by result of study which states that experienced by cancer patients regarding psychological responses include fear and anxiety, low self-esteem, shame, depression, and despair. Kubler Ross in 1960 states in his theory that there are five stages in grieving: denial, anger, bargaining, depression and acceptance. For the first diagnosed, all of participant feel denial, and during the therapy they can acceptance with their condition [36],[37].

The stages of acceptance during participant experience was various, because there were some reason that made their feeling fear, like how they suffering in cancer, solitude, being a burden on others, leaving family when they dead, and unfinished stories, being in fear condition can make participant stress. Stressed individuals will tend to assume that making decisions at times like this is a dangerous, difficult and painful situation [38]. Feelings of despair experienced by participants when diagnosed with cancer according to Kubler Ross can be said to be a form of depression while feelings of surprise are included in the category of panic and only one participant (P3) responds psychologically to accept the condition.

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REFERENCES

- [1] Baselga J, Bhardwaj N, Cantley LC, DeMatteo R, DuBois RN, Foti M, et al. AACR Cancer Progress Report 2015. *Clin Cancer Res* [Internet]. 2015;21(19):S1–128. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5001568/pdf/nihms806691.pdf>
- [2] IARC report W. Latest global cancer data: Cancer burden rises to 18.1 million new cases and 9.6 million cancer deaths in 2018. *Int Agency Res Cancer*. 2018;
- [3] Surbakti E, Ginting BKB, Mangkuji B, Sitorus S. Influence of cancer fatalism and family support against delay cervical cancer sufferers seek treatment at the hospital center H. Adam Malik Medan, Indonesia. *Asian J Microbiol Biotechnol Environ Sci*. 2017;
- [4] Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin*. 2018;
- [5] Iarc. IA for R on CWHO. GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012. *Globocan*. 2012;
- [6] Ferlay J, Soerjomataram I, Dikshit R, Eser S, Mathers C, Rebelo M, et al. Cancer incidence and mortality worldwide: Sources, methods and major patterns in GLOBOCAN 2012. *Int J Cancer*. 136(5):E359–86, 2015.
- [7] Shah R, Rosso K, David Nathanson S. Pathogenesis, prevention, diagnosis and treatment of breast cancer. *World Journal of Clinical Oncology*. 2014.
- [8] Rutten LJF, Arora NK, Bakos AD, Aziz N, Rowland J. Information needs and sources of information among cancer patients: A systematic review of research (1980-2003). *Patient Education and Counseling*. 2005.
- [9] Singh P, Chaturvedi A. Complementary and alternative medicine in cancer pain management: A systematic review. Vol. 21, *Indian Journal of Palliative Care*. . p. 105–15. 2015.

- [10] Bao Y, Kong X, Yang L, Liu R, Shi Z, Li W, et al. Complementary and alternative medicine for cancer pain: An overview of systematic reviews. Vol. 2014, Evidence-based Complementary and Alternative Medicine. 2014.
- [11] Rahnama M, Khoshknab MF, Maddah SSB, Ahmadi F. Iranian cancer patients' perception of spirituality: a qualitative content analysis study. *BMC Nurs*. 2012.
- [12] Obirikorang Y, Obirikorang C, Anto EO, Acheampong E, Batu EN, Stella AD, et al. Knowledge of complications of diabetes mellitus among patients visiting the diabetes clinic at Sampa Government Hospital, Ghana: A descriptive study. *BMC Public Health*;16(1). 2016.
- [13] Anggraini D, Nugroho AS, Pratama C, Rozi IE, Aulia Arif Iskandar, Reggio Nurtanio Hartono. Automated status identification of microscopic images obtained from malaria thin blood smears. In: Proceedings of the 2011 International Conference on Electrical Engineering and Informatics, ICEEI 2011. 2011.
- [14] Nalim S, Bogh C, Hartono S. Rapid Assessment of Correlation between Remotely Sensed Data and Malaria Prevalence in the Manoreh Hills Area of Central Java, Indonesia-Final report. WHO GENEVA. 2002;
- [15] Calitz C, Steenekamp JH, Steyn JD, Gouws C, Viljoen JM, Hamman JH. Impact of traditional African medicine on drug metabolism and transport. Vol. 10, Expert Opinion on Drug Metabolism and Toxicology. p. 991–1003. 2014.
- [16] Zimmerman C, Kandiah J. A pilot study to assess students' perceptions, familiarity, and knowledge in the use of complementary and alternative herbal supplements in health promotion. *Altern Ther Health Med*. ;18(5):28–33. 2012.
- [17] Ekor M. The growing use of herbal medicines: Issues relating to adverse reactions and challenges in monitoring safety. *Front Neurol* ;4 JAN(January):1–102014.
- [18] Deye, N., Vincent, F., Michel, P., Ehrmann, S., Da Silva, D., Piagnerelli, M., ... Laterre, P.-F. (2016). Changes in cardiac arrest patients' temperature management after the 2013 trial: Results from an international survey. *Annals of Intensive Care* 6(1). <http://doi.org/10.1186/s13613-015-0104-6>, Al-Hussaini, M., & Mustafa, S. (2016). Adolescents' knowledge and awareness of diabetes mellitus in Kuwait. *Alexandria Journal of Medicine*, 52(1) 61–66. <http://doi.org/10.1016/j.ajme.2015.04.001>, Pollach, G., Brunkhorst, F., Mipando, M., Namboya, F., Mndolo, S., & Luiz, T. (2016). The "first digit law" – A hypothesis on its possible impact on medicine and development aid. *Medical Hypotheses*, 97 102–106. <http://doi.org/10.1016/j.mehy.2016.10.021>, Asiedu, K., Kyei, S., Ayobi, B., Agyemang, F. O., & Ablordeppey, R. K. (2016). Survey of eye practitioners' preference of diagnostic tests and treatment modalities for dry eye in Ghana. *Contact Lens Anterior Eye*, 39(6) 411–415. <http://doi.org/10.1016/j.clae.2016.08.001>, Barakat, K. H., Gajewski, M. M., & Tuszynski, J. A. (2012). DNA polymerase beta (pol β) inhibitors: A comprehensive overview. *Drug Discovery Today*, 17(15–16) 913–920. <http://doi.org/10.1016/j.drudis.2012.04.008>, Mocan, O., & Dumitraşcu, D. L. (2016). The broad spectrum of celiac disease and gluten sensitive enteropathy. *Clujul Medical*, 89(3) 335–342. <http://doi.org/10.15386/cjmed-698>, et al. The natural health product-drug interaction screening tool: A scoping review. *Basic Clin Pharmacol Toxicol*. 2014;
- [19] Kevin Range and DMYAM. 基因的改变 NIH Public Access. *Bone*. ;23(1):1–7, 2012.
- [20] Madeira Junior JV, Nakajima VM, Contesini FJ, Teixeira CB, Macedo JA, Macedo GA. Hesperetin: Simple natural compound with multiple biological activity. In: *Fruit and Pomace Extracts: Biological Activity, Potential Applications and Beneficial Health Effects*, p. 107–20. 2015.
- [21] Yajid AI, Ab Rahman HS, Wong MPK, Wan Zain WZ. Beneficios potenciales de *Annona muricata* en la lucha contra el cáncer: Una revisión. *Malaysian J Med Sci [Internet]*. 2018;25(1):5–15. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5862046/pdf/02mjms25012018_ra.pdf
- [22] Farid Alakbarli and Iskandar Aliyev. 8.3 Silk Road - The Origin of the Mulberry Trees - Farid Alakbarli and Iskandar Aliyev [Internet]. *Azerbaijan International*. 2000. p. 52–3. Available from: https://www.azer.com/aiweb/categories/magazine/83_folder/83_articles/83_silk.html
- [23] Gerry KF, Mulyadi N, Kallo V. THE INFLUENCE OF CONSUMPTION OF LEAF SIRSAK LEFT ON PAIN DECREASE IN GOUT ARTRITIS PATIENTS IN THE WORKING AREA OF PINELENG PUSKESMAS. *J Keperawatan UNSRAT*. 2015;
- [24] Hoey LM, Ieropoli SC, White VM, Jefford M. Systematic review of peer-support programs for people with cancer. Vol. 70, *Patient Education and Counseling*. p. 315–37. 2008.

- [25] Northouse L, Williams AL, Given B, McCorkle R, Netter FH. Psychosocial care for family caregivers of patients with cancer. Vol. 30, *Journal of Clinical Oncology*. p. 1227–34. 2012.
- [26] DiMatteo MR. Social Support and Patient Adherence to Medical Treatment: A Meta-Analysis. Vol. 23, *Health Psychology*. p. 207–18, 2004.
- [27] Mwaikambo L, Speizer IS, Schurmann A, Morgan G, Fikree F. What works in family planning interventions: A systematic review. Vol. 42, *Studies in Family Planning*. p. 67–82, 2011.
- [28] Aarssen, L. W., & Crimi, L. (2016). Legacy, leisure and the ‘work hard—Play hard’ hypothesis. *The Open Psychology Journal* 9. Retrieved from aarssensl@queensu.ca, Abdollahi, A. (2013). Political psychology of the death terror. In S. J. Sinclair, D. Antonius, S. J. Sinclair (Ed), & D. Antonius (Ed) (Eds.) *T political psychology of terrorism fears*. (pp. 213–226). <https://doi.org/10.1093/acprof:oso/9780199925926.003.001>, Abdollahi, A., Pyszczynski, T., Maxfield, M., & Luszczynska, A. (2011). Posttraumatic stress reactions as a disruption in anxiety-buffer functioning: Dissociation and responses to mortality salience as predictors of severity of posttraumatic symptoms. *Psy* 329–341. Retrieved from tpyszczynski@uconn.edu, Abel, E. L., & Kruger, M. L. (2009). Mortality salience of birthdays on day of death in the major leagues. *Death Studies*, 33(2) 175–184. Retrieved from eabel@wayne.edu, Abeyta, A. A., Juhl, J., & Routledge, C. (2014). Exploring the effects of self-esteem and mortality salience on proximal and distally measured death anxiety: A further test of the dual process model of terror management. *Motivation and Emotion*, 38(4) 523–528. Retrieved from andrew.abeyta@my.ndsu.edu, Abeyta, A. A., Nelson, T. A., & Routledge, C. (2019). Precious time: The role
- [29] of time and temporal thought in managing death awareness. In C. Routledge & M. Vess (Eds.) *H of terror management theory*. (pp. 209–225). <https://doi.org/10.1016/B978-0-12-811844-3.0000-1>, et al. The effects of values, expectations, and mortality reminders on individuals’ choices between alternatives. *Dissertation Abstracts International: Section B: The Sciences and Engineering*. 2019.
- [30] Cameron JI, Gignac MAM. “Timing It Right”: A conceptual framework for addressing the support needs of family caregivers to stroke survivors from the hospital to the home. *Patient Education and Counseling*. 2008.
- [31] Boberg EW, Gustafson DH, Hawkins RP, Offord KP, Koch C, Wen KY, et al. Assessing the unmet information, support and care delivery needs of men with prostate cancer. *Patient Educ Couns*. 2003;
- [32] Grav S, Hellzèn O, Romild U, Stordal E. Association between social support and depression in the general population: The HUNT study, a cross-sectional survey. *J Clin Nurs*. 2012;
- [33] Malecki CK, Demaray MK. What Type of Support do they Need? Investigating Student Adjustment as Related to Emotional, Informational, Appraisal, and Instrumental Support. *Sch Psychol Q*. 2003;
- [34] Deye, N., Vincent, F., Michel, P., Ehrmann, S., Da Silva, D., Piagnerelli, M., ... Laterre, P.-F. (2016). Changes in cardiac arrest patients’ temperature management after the 2013 trial: Results from an international survey. *Annals of Intensive Care* 6(1). <http://doi.org/10.1186/s13613-015-0104-6>, Al-Hussaini, M., & Mustafa, S. (2016). Adolescents’ knowledge and awareness of diabetes mellitus in Kuwait. *Alexandria Journal of Medicine*, 52(1) 61–66. <http://doi.org/10.1016/j.ajme.2015.04.001>, Pollach, G., Brunkhorst, F., Mipando, M., Namboya, F., Mndolo, S., & Luiz, T. (2016). The ‘first digit law’ – A hypothesis on its possible impact on medicine and development aid. *Medical Hypotheses*, 97 102–106. <http://doi.org/10.1016/j.mehy.2016.10.021>, Asiedu, K., Kyei, S., Ayobi, B., Agyemang, F. O., & Ablordeppay, R. K. (2016). Survey of eye practitioners’ preference of diagnostic tests and treatment modalities for dry eye in Ghana. *Contact Lens Anterior Eye*, 39(6) 411–415. <http://doi.org/10.1016/j.clae.2016.08.001>, Barakat, K. H., Gajewski, M. M., & Tuszyński, J. A. (2012). DNA polymerase beta (pol β) inhibitors: A comprehensive overview. *Drug Discovery Today*, 17(15–16) 913–920. <http://doi.org/10.1016/j.drudis.2012.04.008>, Mocan, O., & Dumitraşcu, D. L. (2016). The broad spectrum of celiac disease and gluten sensitive enteropathy. *Clujul Medical*, 89(3) 335–342. <http://doi.org/10.15386/cjmed-698>, et al. Cultural norms, knowledge and attitudes regarding abortion in rural Ghana. *Ann Glob Heal*. 2015;
- [35] Shaw J, Harrison J, Young J, Butow P, Sandroussi C, Martin D, et al. Coping with newly diagnosed upper gastrointestinal cancer: A longitudinal qualitative study of family caregivers’ role perception and supportive care needs. *Support Care Cancer*;21(3):749–56 2013.

- [36] Neal ML, Trister AD, Ahn S, Baldock A, Bridge CA, Guyman L, et al. Response classification based on a minimal model of glioblastoma growth is prognostic for clinical outcomes and distinguishes progression from pseudoprogression. *Cancer Res* ;73(10):2976–862013.
- [37] Rubia JM de la, Ávila MM. Contraste empírico del modelo de cinco fases de duelo de Kübler-Ross en mujeres con cáncer. *Pensam Psicológico*. 2015;
- [38] Curry KC. The Deaccreditation of Compton Community College: An Interpretation Through the Kubler-Ross Grief Construct. *ProQuest Dissertations and Theses*. 2011.
- [39] Duggleby W, Ghosh S, Cooper D, Dwernychuk L. Hope in newly diagnosed cancer patients. *J Pain Symptom Manage*. 2013;

