

PENINGKATAN PENGETAHUAN LUKA BAKAR MELALUI PENYULUHAN MENGENAI PENCEGAHAN DAN PENANGANAN DINI PADA LUKA BAKAR

Dr. HardisiswoSoedjana dr., SpBP-RE (K)¹

dr. Lisa HasibuanSpBP-RE (K)²

dr. Benny Muliawan³

¹²³Departemen Bedah/ FakultasKedokteranUniversitasPadjadjaran / DivisiBedahPlastik, Rekonstruksi Dan Estetik / RumahSakitHasanSadikin Bandung

ABSTRAK

Luka bakar merupakan kerusakan jaringan yang diakibatkan sumber panas seperti api, air panas, bahan kimiawi, sinar matahari atau radiasi. Luka bakar di Indonesia merupakan cedera yang memberikan masalah tersendiri. Desain penelitian yang digunakan adalah deskriptif. Tujuan dari penelitian ini adalah untuk mengetahui gambaran pengetahuan, sikap, dan tindakan anggota keluarga tentang penanganan pertama luka bakar. Sampel diambil dengan teknik *purposive sampling* sebanyak 61 responden. Pengambilan data menggunakan metode kuesioner tertutup, dan pengumpulan data dilakukan dengan cara mengumpulkan responden dalam satu tempat. Variabel yang diteliti meliputi pengetahuan, sikap, dan tindakan responden tentang penanganan pertama luka bakar. Agar pengetahuan keluarga tentang penanganan pertama luka bakar menjadi lebih baik maka diperlukan kegiatan penyuluhan oleh petugas kesehatan dengan memperhitungkan keefektifan agar benar-benar dapat diterima oleh keluarga.

Kata Kunci : Luka Bakar, Pencegahan dan Penanganan, Pengetahuan, Penyuluhan, Kuesioner tertutup.

KNOWLEDGE INCREASING THROUGH COUNSELLING ABOUT PREVENTION AND EARLY MANAGEMENT OF BURNS

ABSTRACT

Burns was a tissue damage which is caused by heat, such as fire, hot water, chemical substance, sun light or radiation. In Indonesia, burns is an injury which gives its own problem. We often see and experience the burns in daily life. Our responsive actions of early management burns will often worsen the burns itself. Research design which is used was descriptive one. The aim of research is to know the picture of knowledge, attitude, and family responsive actions of first burns handling. The sample is taken with purposive technique which is 61 respondents. Data processing uses close-questionnaire method, and data collecting is conducted by gathering all respondent in one place. Variables which are researched cover the knowledge, attitude, and actions of respondents toward first burns handling. The increase family's knowledge of burnsearly management, it was necessary to have counselling conducted by medical staff and it is necessary to calculate the effectiveness in order to be truly accepted by family.

Key words : Burns, Preventive and Management, Knowledge,Counselling, Close-Questionnaire.

Background

Burns are a significant and serious health problem. Most of the patients treated for burns spend a long time healing and incur significant costs both for the treatment, treatment and restoration of bodily functions, in terms of reconstruction and aesthetics. According to data taken from the Bi-National Burn Repository of the Australasian-New Zealand Burn Association (ANZBA), the incidence of burns from 2009-2012 reached 7,408 people. When viewed from the extent, the burns most experienced by all age groups are burns with an area of 0-9% Total Body Surface Area (TBSA), each in 86.6% of children and 79.4% in adults. ⁽¹⁾ Burns data in the United States according to the American Burn Association (ABA) 2015 repository (burns cases from 2005-2014) are 0.1-9.9% TBSA in more than 75% of cases of burns with partial thickness and full thickness. Overall the cause of the most burns in the United States is 79,303 cases (42.6%) caused by fire and by hot fluids by 63,247 cases (34%). ⁽²⁾ In epidemiological studies in New York in the 1980s, from 178 patients who suffered burns due to traffic accidents, 1/3 involved other accompanying trauma besides burns, 1/6 suffered inhalation trauma and 1/3 of those suffering from inhalation trauma died. ⁽²⁾

In developing countries the morbidity and mortality rates are higher compared to developed countries. According to data at the referral hospital in Kabul Afghanistan in the year 2005, there were 532 burn patients, with mortality reaching 28% or around 151 deaths. ⁽²⁾ The most common cause of death in burns was sepsis, multiple organs failure (MOF), systemic inflammatory response syndrome (SIRS), and acute respiratory distress syndrome (ARDS). ⁽³⁾ According to the 2015 ABA report, there was an increase in mortality in burn patients with inhalation injuries compared to burn patients without inhalation injury ⁽⁴⁾ According to data from the Bi-National Burns Registry Annual Report in 2011-2012, there were 65% fatalities of burn patients with inhalation injuries in hospitals. ⁽¹⁾ There are no definite figures for morbidity and mortality of burns with inhalation trauma. in Indonesia. At the hospital. CiptoMangunkusumo, of 275 adult patients treated for burns in 2011-2012, there were 93 people who died (27.6%). The area of burns in patients who die varies with the highest number of patients with an area of burns of 31-40% TBSA. ⁽³⁾ In RSUP Dr.HasanSadikin (RSHS) there were 917 burn patients treated since 2010-2015. In 2014-2015 there were 50 patients treated with severe burns, and

the mortality rate reached 18% in patients with ARDS conditions and threatened with ARDS. This number decreased from the previous year, where the mortality of ARDS patients with / without inhalation trauma was nearly 100%.

Fast and precise handling of burns will not cause harmful effects on the body. However, if the burn is not treated as soon as possible, it will cause various complications such as infection, shock, and electrolyte imbalance. Apart from physical complications, burns can also cause severe emotional and psychological distress due to defects that will arise from burn scars.

Medicines that are efficacious for dealing with burns that have been widely known, such as Silver Sulfadiazine, Bacitracin and Mafenide acetate are anti microbial agents. Hydrocolloids and hydrogel as absorptive dressings also accelerate wound healing process (Singer & Dagum, 2008). This drug has been widely known by the people of Indonesia, with various brands, but with high costs so that the treatment is not perfect or even not done at all. Therefore, researchers are interested in researching community knowledge about prevention and treatment of burn cases.

INTRODUCTION

Burns

Burns can occur due to various causes. Hot fluid burns are the most common burn cases in the community. The depth of a hot fluid burn is determined by the temperature of the liquid, the duration of exposure to liquids, and the viscosity of the liquid (usually a longer contact exposure with a thicker hot liquid). Burns because hot fluids generally recover without the need for a skin graft. Fire burns are the second most common cause of burns. It usually occurs due to house fires, bonfires, and burning of waste. ⁽⁵⁾ If the patient's clothes are on fire, usually the depth of the burn becomes full thickness. Blast burns are quite frequent and are usually caused by burning propane or gasoline. Explosive burns usually injure exposed skin (most often the face and extremities) and usually result in partial thickness burns. Contact burns occur due to contact with hot metal, plastic, burning wood, and embers. Usually contact burns have deep wounds and are confined to areas of the body that are injured. In addition, burns can occur due to electricity and chemicals. ⁽⁵⁾

According to the World Health Organization (WHO), burns are still a global health problem. About 265,000 deaths a year are caused by burns. Most cases occur in countries with low-moderate income, and almost half occur in the Southeast Asia region. In countries with high per capita income due to burns has decreased and child mortality due to burns is currently 7 times higher in countries with low-to-moderate per capita income compared to countries with high per capita income. ⁽⁶⁾

Non-fatal burns are a major cause of morbidity, including the length of hospital care, disability and disability and as a major cause of disruption of annual life dysfunction or known as Disability-Adjusted Life Years in countries with low-to-moderate per capita income. ⁽⁶⁾

Based on statistical data from ABA, most burn patients in America are men with 69% of men and 31% of women. The most common causes of burns that go to the hospital are fire burns (43%), scald (34%), contact (9%), electricity (4%), chemistry (3%), and other causes (7%). The place where burns occur is at home (73%), work place (8%), road / toll road (5%), recreation area / sports area (5%), and other places (9%). ⁽⁷⁾

In Indonesia, data on burn morbidity is incomplete, but according to data taken from the Hospital Burns Unit. Cipto Mangunkusumo Jakarta collected for 2 years shows the etiology of burns: 78% due to fire, 14% due to electricity, 4% due to hot water, 3% due to chemicals and 1% due to metals. There is a mortality rate of 27.6% of the data. The cause of death due to septicemia (42.1%), multi organ failure (31.6%), SIRS (17.6%) and ARDS (8.7%). ⁽⁸⁾

Framework

There are so many complications that can occur due to late burns handling, even complications can still occur if after that the patient is taken to the hospital. People with burns, can experience a variety of organ damage, the most frequent and rapid occurrence is the cardiovascular system due to dehydration due to burns, in addition it can occur inhalation trauma and pulmonary edema. Therefore, it would be better if the community can understand the prevention and treatment of burns, to reduce the risk of severe complications in patients.

MATERIALS AND IMPLEMENTATION METHODS

Framework for Problem Solving

There were 6 residents of Babakan Sari sub-district, Antapani, Bandung, who were heavily burn patients in the RSHS unit. This was caused by the burning of a boarding house that became their residence due to an electric surge. After being searched deeper, it turned out that in the area there had been 3 major fires which resulted in the death of the victim, besides that the area was included in the location of the fire area of the city of Bandung. Based on this problem, we decided to try to increase knowledge about the prevention and early treatment of burn victims in the area, by conducting counseling and training for the residents of the area. Then the indicators used are whether this method works or not, by the way the participants fill out the pre and post counseling questionnaire data.

Realization of Problem Solving

Participants can absorb counseling and research materials well, so that in the future they can prevent fires and burns from each of them and their surroundings.

Target Audiences

Residents of Babakan Sari sub-district, Antapani, Bandung. 61 residents were obtained from RW 06 which was a mixture of RT 01-06.

Methods Used (Activity Stages)

Pre and post questionnaires were used for residents who attended counseling. Where it is expected that there will be an increase in knowledge in fire prevention and early handling of burns.

Results Achieved: stages of activities, changes that occur in the target audience

This research is a quantitative research with descriptive design.

Subject

The subjects of this study were residents around Babakan Sari area, KiaraCondong sub-district with 61 people.

Variable Examination

The subject will be examined by filling in the data on the questionnaire consisting of 14 numbers.

Data Processing

Data is presented descriptivel

Table 1. Pre and Post counseling questionnaire result

Questions	Pre Test Result		Post Test Result	
	Right	Wrong	Right	Wrong
1. Have you experienced burns?	31% (yes)	69% (Never)	31% (Yes)	69% (Never)
2. What can cause burns?	36%	64%	100%	0%
3. What did you do the first time during a fire?	44%	56%	93%	7%
4. If someone smokes in the house, what will you do?	89%	11%	100%	0%
5. What did you first do when you saw fire burn victims around you?	21%	79%	100%	0%
6. What complications do you know from burns?	13%	87%	93%	7%
7. What do you do if a large fluid-filled lump appears at the site of a burn?	10%	90%	98%	2%
8. Do you have a separate kitchen at home?	98% (Yes)	2% (No)	98% (Yes)	2% (No)
9. Do you use a 3 kg LPG gas stove?	All participants use 3 KG LPG gas			
10. What do you do when there is a gas leak?	6%	94%	100%	0%
11. How to use a good and correct socket?	18%	82%	100%	0%

12. What do you do when you find a victim of an electric burn?	38%	62%	100%	0%
13. In your neighborhood, have you been taught to handle an emergency and arrange an evacuation route?	2%	98%	2%	98%
14. Are there around you facilities for handling fires?	0 (Yes)	100% (No)	0 (Yes)	100% (No)

Graphic 1. Comparison of the Results of The Pre Test and Post Test

Discussion

Can be seen from the search results, as many as 31% of participants have experienced burns, 98% of participants already have a kitchen separate from other rooms, 100% use 3 kg LPG gas, only 2% of participants have studied disaster emergency handling and lane arrangement disaster evacuation, and 100% of participants felt they did not have fire handling facilities in their area. Knowledge gained a significant increase from pre and post counselling.

Program Sustainability Plan

Seeing the people's enthusiasm for the material and the effectiveness of this counseling, in the future this program will be carried out more often especially in areas prone to fire in the city of Bandung.

REFERENCE

1. Team B-NBRP. Bi-National Burns Registry: Annual Report. Melbourne: Australian and New Zealand Burn Association; 2013.
2. Lentz C, Reigart C, Bernal N, Faraklas I, Mosier M, Potenza B, et al. National Burn Repository: Report Of Data From 2005-2014. Chicago: American Burn Association; 2015.
3. Lee S, Kim J, Lee J, Park Y, CHLee, Yim J, et al. Effect Of Angiotensin Converting Enzyme Inhibitor In Patients With Acute Respiratory Distress Syndrome. Am J Respir Crit Care Med. 2013;187.
4. Blondonnet R, Constantin J, Sapin V, Jabaudon M. A Pathophysiologic Approach to Biomarkers in Acute Respiratory Distress Syndrome. Hindawi Publishing. 2016;2016:1-20.
5. Klein M. Thermal, Chemical, And Electrical Injuries. In: Thorne C, editor. Grabb And Smith's Plastic Surgery. 7th ed. Philadelphia: Lippincott Williams & Wilkins; 2014. p. 127-41.
6. WHO. Burns: Fact sheet 2017 [cited 2017. Available from: <http://www.who.int/mediacentre/factsheets/fs365/en/>.

7. Association AB. Burn Incidence Fact Sheet: American Burn Association; 2016 [cited 2016. Available from: <http://ameriburn.org/who-we-are/media/burn-incidence-fact-sheet/>].
8. Martina N, Wardhana A. Mortality Analysis of Adult Burn Patients. *Jur Plast Rekons*. 2013;2:96-100.