The Level of Public Knowledge about the Management of Burns in the Working Area of the Puskesmas Kota Timur, Kota Timur Subdistrict, Gorontalo City

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Abstract. Burns are injuries caused by touching the surface of the body with an object that produces heat from a heat source or from an intermediary material that can conduct heat, exposure to the sun with high temperatures, electricity, or chemicals, water, etc. or other substances, which are destructive and loss of tissue by burning the skin (strong acid, strong base), Design and Sample: This study is to analyze the extent of public knowledge about the management of burns in the working area of the Puskesmas Kota Timur, Kota Timur Subdistrict, Gorontalo City. This research method is carried out with a quantitative approach with a descriptive design. The population sample of 100 respondents was taken by non-probability sampling technique. sample area of 6 kelurahan was taken by using Quota sampling technique. Collecting data through observation and analysis of descriptive statistical tests. Results: From the results of the study, it can be seen that there are still many people wrongly using toothpaste for treating burns (73.0%). The results showed that the level of knowledge of the community in the working area of the Puskesmas Kota Timur, Kota Timur Subdistrict, Gorontalo City was included in the sufficient category (56.0%). Discussion and Conclusions: From the researcher's perspective, the community still needs to be given counseling to increase knowledge about handling burns so that people understand what to do and minimize the incidence of burns in the working area of the Tomur City Health Center, Gorontalo City.

Keywords: Burns, Knowledge Level

INTRODUCTION

Emergency handling has a philosophy, namely Time Saving it's Live Saving. This means that all actions taken during emergency conditions must be truly effective and efficient. This is reminiscent of the condition that patients can lose their lives in just a matter of minutes. Stopping breathing for 2-3 minutes in humans can result in fatal death. (Surtiningsih et al., 2016)
Burns are basically a heat transfer event, whose heat source can be corrected such as direct or indirect contact with fire, electricity, chemical material, friction or radiation. Young children and the elderly are the population most at high risk for burns. Most burns occur at home during cooking, heating or using power tools. The final result is skin tissue damage, even in the case of multisystemic injury, it can cause serious disorders. Systemic effects and mortality caused by burns are largely determined by the extent and depth of the skin affected by the wound (Sentat & Permatasari, 2017).

In Riskesdas (2018) data on the prevalence of burns in Gorontalo Province is at 1.50%, this figure is high compared to other areas, which is below 1.0%. When viewed from the age group, children aged between 1-4 years occupy the first position with a total of 3.26% followed by the age group 25-34 years with a total of 2.33%, in the third place, namely the age group 15 - 24 years old at 1.92%, the 4th place is occupied by the 45-54 year age group at 1.83%, while in 5th place is occupied by the 5-14 year age group at 1.21%. (Gorontalo Provincial Health Office). According to (Riskesdas Gorontalo, 2018) In Gorontalo City alone, the prevalence of burns is 1.21% (Gorontalo Provincial Health Office).

In Riskesdas (2018), there are 3 (three) types of access to health services that are calculated, namely: (1) Access to hospital facilities; (2) Access to Puskesmas facilities; (3) Access to Independent Clinic/Practice facilities. The results of the analysis obtained are as follows: (1) Access to hospital facilities, three dimensions provide an explanation of the scoring index of 51.99% with a correlation between 0.18 to 0.40. (2) Access to Puskesmas/Pustu/Pusling/Village Midwives facilities, three dimensions provide an explanation of the index score of 39.29% with a correlation between 0.02 to 0.14. (3) Access to Clinics/Doctors' Practices/Dentist's Practices/Independent Midwives Practices, three dimensions provides an explanation of 39.94% with a correlation between 0.03 to 0.18. (Gorontalo Provincial Health Office)

From the results of the researcher's interview as well as the initial data survey on April 27, 2021 to 6 people, it was found that they carried out the treatment according to what they knew, they trusted the treatment of burns by using toothpaste, flour, coconut oil and others. From some of the statements above, it can be seen that the incidence of burns in the community is still quite high and the level of knowledge of the emergency community on burns is still low and there are still many people who believe in the use of toothpaste, butter, and oil for healing burns. For this reason, researchers are interested in examining the level of public knowledge about "an overview of public knowledge about burn wound management" in the East City Health Center Work Area. Those who have not received counseling about the treatment of burns

METHODS

This research was conducted with a quantitative approach with a descriptive design. Descriptive research is research in which there is no analysis of the relationship between variables, there are no independent and dependent variables, general in nature that requires answers where, when, how many, who and the statistical analysis used is descriptive. According to Sugiyono (2016) in Kurniawan, 2017) this type of quantitative research is a research method based on the philosophy of positivism, used to examine certain populations or samples conducted randomly with the aim of testing predetermined hypotheses. This research method is carried out with a quantitative approach with a descriptive design. The population sample of 100 respondents was taken by non-probability sampling technique. sample area of 6 kelurahan was taken by using
Quota sampling technique. Collecting data through observation and analysis of descriptive statistical tests

RESULTS AND DISCUSSION

Table 1. Distribution of Frequency characteristics of Research Subjects By Age, Gender, Last Education and Occupation, (n=100)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Characteristic</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>16-35</td>
<td>54</td>
<td>54.0</td>
</tr>
<tr>
<td></td>
<td>36-55</td>
<td>32</td>
<td>32.0</td>
</tr>
<tr>
<td></td>
<td>&gt;55</td>
<td>14</td>
<td>14.0</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
<td>61</td>
<td>61.0</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>39</td>
<td>39.0</td>
</tr>
<tr>
<td>Primary Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>27.0</td>
<td></td>
</tr>
<tr>
<td>Higher Education</td>
<td></td>
<td>73</td>
<td>73.0</td>
</tr>
<tr>
<td>Work</td>
<td></td>
<td>69</td>
<td>69.0</td>
</tr>
<tr>
<td>Doesn't Work</td>
<td></td>
<td>31</td>
<td>31.0</td>
</tr>
</tbody>
</table>

Based on table 1 above, it can be seen that the characteristics of the respondents consist of Age, Gender, Last Education and Occupation. Based on the table above shows that the most respondents based on age are the age group 16-35 years as many as 54 respondents (54.0%), based on gender the largest group is the male group, namely 61 respondents (61.0%), based on Recent Education the highest group is Higher Education as many as 73 respondents (73.0%), based on occupation the largest group is respondents who choose to work as many as 69 respondents (69.0%).

Based on table 1 above, the percentage of questions related to public knowledge about burns that were answered correctly was the question variable 1. Definition of burns (85.0%), followed by the question variable 4. Ice cubes for burns (83.0%), question variable 8. Water flows to reduce the burning sensation (79.0%), question variable 9. Water flows to reduce wound severity (66.0%), question variable 6. Burns (56.0%), question variable 7. The use of ice cubes, toothpaste, oil increases the risk of infection (35.0%), question variable 3. The content of toothpaste for the skin (33.0%) is as much as the variable Question 5. Oil for burns (33.0%) and the least correct answer or in other words the most incorrect answer is the question variable 2. Toothpaste for burns (27.0%).

Age

Based on the data from the research that has been done, the frequency distribution based on the age of the most respondents in this study is the age category of 16-35 years as many as 54 respondents (54.0%). In the results of research in the East City Health Center Work Area, Gorontalo City, getting old enough can affect the level of knowledge. According to Hurlock (1998) in (Yosephine, 2021) the older you are, the level of maturity and strength a person will be more mature in thinking and working. Trust in society is someone who is more mature or more trusted.

According to researchers, the era that is increasingly developing and followed by technological developments has an impact on society, especially at the age of teenagers to adults 16-35 years which if described in detail in this study from 29 respondents aged 16-25 years, (58.6%) of them have a sufficient level of knowledge not much different from the age of 26-35 years from 25 respondents, (56.0%) of them have a sufficient level of
knowledge, this is in accordance with the theory above that the more old enough can affect the level of knowledge of the respondents. The development of information media and technology at the age of 16-35 years makes people receive information more quickly, especially today’s generation who are technology-savvy, where technology has now reached all circles in the Gorontalo area which also greatly affects the knowledge possessed by the community.

**Sex**

Based on the data from the research that has been done, the frequency distribution based on the gender of the most respondents in this study is the male group, as many as 61 respondents (61.0%). Knowledge of habits in seeking information about health is influenced by one of the personal characteristics, namely gender. Gender differences in social consequences of health including how the occurrence of illness or accident affects men and women, including health information seeking habits, availability of support from the environment and stigma associated with certain diseases. Men and women respond differently when sick, such as before admitting that they are sick, recovery time and how women and men are treated by their families and society especially when they are sick (Vlassoff, 2007) in (Yosephine, 2021).

According to the researchers, there was no correlation between the level of community knowledge when viewed from the gender of the respondents, in this study there were more male respondents because men had more activities and productivity outside the home so that researchers found it easier to reach male respondents than female respondents. the increase in cases of the Covid-19 pandemic and level 4 PPKM which made fewer women active outside the home so it was easier to reach male respondents.

**The Last Education**

Based on the data from the research that has been done, it is found that the frequency distribution based on Recent Education, the most respondents in this study were the Higher Education group as many as 73 respondents (73.0%). People who have good knowledge also have good attitudes and behavior. In addition, this high level of knowledge is also supported by the education level of most of the respondents are higher education (diploma and bachelor) (Yanti B et al., 2020) in (Suprayitno et al., 2020). Someone with a low level of knowledge is not necessarily worse than someone with a high level of education (Wahid, 2017)

According to researchers, education plays an important role in a person’s level of knowledge, not necessarily from school, knowledge can be sharpened when we want to find out, in this study the level of education does not have a significant impact on the level of knowledge of each respondent because at any public school level almost there is no learning about burn management except in health science schools, for example there are some respondents in this study with a low level of education even have better grades than respondents with higher education, this strengthens the theory that education level is not always able to give a big contribution to public knowledge about handling basic problems such as burns, several factors that affect the level of public knowledge are the environment, information media, and health education by medical personnel.
Work

Based on the data from the research that has been done, the frequency distribution based on the occupation of the most respondents in this study is respondents who work as many as 69 respondents (69.0%). According to Wiltshire (2018) there are 8 meanings of work, namely: Work as an economic activity, Work as routine and active, Work intrinsically satisfying, Work morally is right, Work as interpersonal experience, Work as status and prestige, Work as gender, and Work as an opportunity to practice. In this study, the researcher did not see a striking relationship between work and the level of knowledge of the community about burn injury treatment, because work is only a way for a person to deal with socio-economic demands in society.

Public Knowledge about the Treatment of Burns

Public Knowledge

Based on table 4.2, it can be seen that the level of public knowledge about the treatment of burns is classified in the Enough category as many as 56 respondents (56.0%). There are still many respondents who do not know that toothpaste contains ingredients that are not good for the skin because respondents think that toothpaste is a safe material to use for cleaning teeth so it will not have a negative effect on application on the skin. In fact, toothpaste contains abrasive chemicals that are useful for cleaning and brightening teeth such as sodium fluoride, etc. (Subramanian, et al., 2017) in (Yosephine, 2021).

In the question about public knowledge of burn wound management, there are 2 scoring criteria, namely a score of 1 if the answer is correct and a score of 0 if the answer is incorrect. ), followed by question item no.2 about toothpaste, the most incorrect answers were (73.0%), question item no. 3 regarding the content of toothpaste for the skin, it was found that many were wrong (33.0%), There were still many respondents who did not know that toothpaste contains ingredients that are not good for the skin because respondents think that toothpaste is a safe material to use for cleaning teeth so it is not safe for use. will also have a negative effect on application on the skin. In fact, toothpaste contains abrasive chemicals that are useful for cleaning and brightening teeth such as sodium fluoride, etc. This material has an adverse effect when applied to injured skin so that it can cause worsening of the wound causing the wound to deepen so that it can increase the formation of scars and create a good environment for secondary infection to occur. question item no. 4 regarding ice cubes for burns were answered correctly (83.0%), %), Question item no. 5 regarding oil for burns, many answered incorrectly (33.0%), question item no. 6 regarding water for burns, many answered correctly (56.0%), question item no. 7 about the use of ice, stones, toothpaste, oil increase the risk of infection the most answered incorrectly (65.0%), question item no.8 about running water to reduce the burning sensation in burns was answered correctly (79.0%) and the last item question no. 9 about running water to reduce the severity of burns were answered correctly (66.0%). According to the researchers, health education regarding the treatment of burns will greatly affect the knowledge of the community, it can be seen in this study that there are still many people who are wrong in handling burns.

CONCLUSION

From the results of the study, it was found that respondents aged 16-35 years were the most respondents with 54 respondents (54.0%), respondents with male sex were the most gender with 61 respondents (61.0%), respondents with the last education
of Higher Education is the largest respondent with 73 respondents (73.0%), based on occupation the largest group is respondents who choose to work as many as 69 respondents (69.0%). From the results of the study, it was found that the level of knowledge of the community in the East City Health Center working area was classified in the Enough category (56.0%) of 100 respondents.

REFERENCES


