

Strategies Of Sanitation Environmental Counseling Towards Increasing Attitude Of Community On Preserve Environment In Makassar City

Ronny, Gufran Darma Dirawan and Muhammad Basir

Email: ronny_muntu@yahoo.co.id, gufrandarma@yahoo.com

Abstract

This research aims to determine differences in public attitudes before and after the given extension using the audio-visual media and images media. This research was conducted at the city of Makassar South Sulawesi with quantitative research experiment with the form of One-Group Pretest-Posttest Design. The population in this research are all the people in the red zone of the District Tallo Makassar. The research results shows counseling using audio-visual media is a t-count value obtained was 8.048 > t-table value of (0.05; 24) was 1,711 with sig 0.000 > 0.05. Because t count > t-table and sig < 0.05 then it can be concluded that there are significant differences between the public attitudes before and after the extension of sanitary by using audio-visual media. Counseling by using media images is a t-count value obtained for 8.887 > t-table value of (0.05; 24) was 1.711 with sig 0.000 > 0.05. Because t count > t-table and sig < 0.05 then it can be concluded that there are significant differences between the level of public knowledge before and after the extension of sanitary by using images media.

Keywords: Attitude, Environmental Sanitation

Introduction

The Law No. 23 of 1992 on the health, article 22, state that environmental health is held to realize the quality of a healthy environment. Environmental health enforceable against public places, neighborhoods, work environment, public transport, and other environments. Law of the Republic of Indonesia No. 36 of 2009 about the health contained in the articles that regulate Efforts Environmental Health aimed to realize the quality of a healthy environment, whether physical, chemical, biological, and social to enable more people to achieve the degree of health of the highest. To achieve these objectives the government is seriously and continuously strive to improve the quality and coverage of health services. In relation with the law to raise awareness of

the willingness and ability of healthy life for everyone to realize the degree of public health optimally, The Regulation of Ministry of Health Number 416/Menkes/Per/IX/1990, that the water used must meet the requirements of water quality and drinking water must meet quality requirements in relation with the Regulation of the Ministry of Health Number 492/Menkes/Per/IV/2010.

Based on the results of initial observations about the sanitary conditions in District Tallo Makassar City is not in relation with expectations, both in terms of construction conditions of sanitation is still very poor and did not meet the requirements of environmental health that have a high risk, due to environmental pollution to quality physical water (turbid water), both derived from family toilets, garbage and household waste water. In the initial observation, the researcher reinforced by their Profile City Health Office of Makassar in 2013 about the environmental conditions in the District Tallo Makassar stating that the conditions of the area included in the list of local red zone and this is very disturbing the public in the two village is in the Rappokalling and Kalukubodoa Village, district of Tallo Makassar. Rauf, (2000) concluded that there is a change in attitude towards positive environmental care in the community, after they scouted about considerable environmental knowledge.

One objective of Global Commitment to the Millennium Development Goals (MDGs) on 2015 to be achieved is the repair/reconstruction of environmental conditions with one target is to reduce by half the proportion of Indonesian people who do not have access to drinking water is unfit for consumption and basic sanitation, purpose this is in line with the strategy of the Ministry of health plan that is empowering communities, private sector and civil society in health development through the cooperation of national and global.

Based on reports WHO-UNICEF Joint Monitoring Program, (2004); the performance of the Water and Sanitation sector in Indonesia is still considered low. Chiras (1990), mentions mental frontier, that the earth is a natural resource that is infinite, life will be more meaningful if we have the resources, the world was created to be conquered, new science and technology will solve environmental problems, man is above the realm where humans apart from nature and are superior, and the waste is expected in every human existence.

One strategy to achieve the improvement of health, productivity and quality of life, is through the Water Supply and Sanitation Community Based program evaluation of the implementation of this activity has not been encouraging appropriate education goals based on the cognitive domain and affective domain (Dimiyati and Mudjiono, 1994).

Notoatmodjo (2003), said that environmental health is essentially a condition or state of optimum environment so that a positive influence on the realization of optimum health status as well. While Azwar, (1996) Sanitation is a public health effort that focuses on oversight of the various environmental factors that affect or may affect the health of humans. Sumantri (2010), also argued on the point that the science of environmental sanitation is part of environmental health sciences and business, including how individuals or communities to control and to control the external environment that are harmful to health and which could threaten human survival.

Environmental sanitation is the health status of an environment that includes housing, sewerage, water supply and so on Notoatmojo, (2007). The next Nursalam (2001) adds that the age of maturity and strength a person will be more mature in thinking and working. Based on the description that was raised, then the purpose of this study was to determine differences in public attitudes before and after the given extension using the audio-visual media and media images treatment.

Research Methods

This research is a quantitative experiments with form One-Group Pretest-Posttest Design. The population in this study are all the people in the red zone of the District Tallo Makassar. While the sample were selected by purposive random sampling at Tallo districts consisting of several villages, then the sample is set in two villages namely KalukuBodoa andRappokalling villages, each village numbered 25 people. So the research sample was 50 people. Data were collected by using instruments such as pretest community attitudes about sanitation management was then given intervention or treatment by conducting counseling activity on water quality improvement by way of a simple water filtration using audio-visual and images media.

After interventions then measuring final (posttest). Data from the data analysis technique used is descriptive analysis and inferential statistical analysis in the form posttestcommunity attitudes about sanitation management after the intervention in the form of counseling related to improving water quality by way of a simple water filtration.

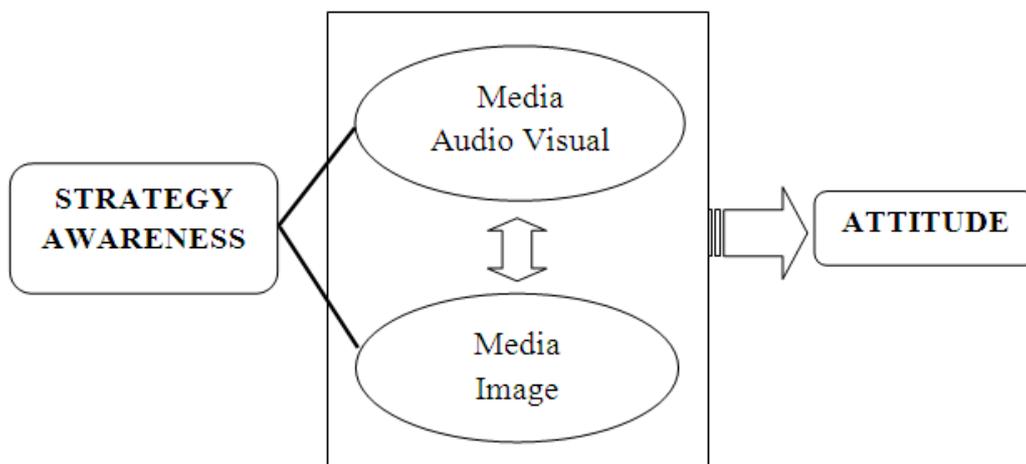


Figure 1. Design Research

The experiment model can be describ below:

Table 1. The Experiment Model

| | | B ₁ | B ₂ |
|-------------------------|---------------------|-------------------------------|-------------------------------|
| | | Media Visual | Media Image |
| Knowledge of sanitation | A ₁ High | A ₁ B ₁ | A ₁ B ₂ |
| | A ₂ Low | A ₂ B ₁ | A ₂ B ₂ |

Results and Discussion

Descriptive Analysis Research results

Based on the results of survey research, it was found that:

Figure 2 above shows a comparison between community attitudes, such data were collected by questionnaire instrument. Categories of public attitudes strongly disagree and agree not gain value so that the percentage is 0.00%. Categories of public attitudes do not disagree obtained percentage 16.00 with a frequency of 8% of the total of 50 respondents. Categories of public attitudes disagree obtained a percentage of 84.00% with a frequency of 42 out of a total of 50 respondents. Community attitudes before intervening in the form of counseling on improvement of water quality by way of a simple water filtration result that community attitudes are less amenable.

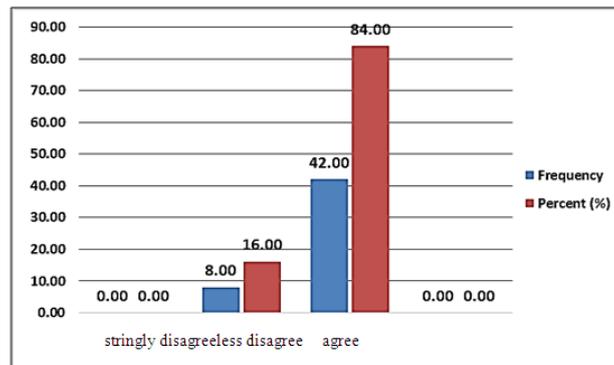


Figure 2. Distribution of community attitudes before the counseling of sanitation

The results of descriptive analysis using SPSS 20 to describe community attitudes in the form of post-test knowledge of sanitation management after the intervention in the form of counseling related to improving water quality by way of a simple water filtration can be seen in the figure below:

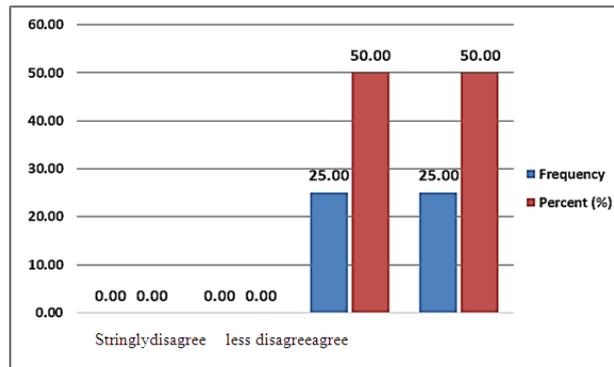


Figure 3. Distribution of community attitudes after the counseling of sanitation

From the figure 3 above shows a comparison between the attitudes of the public, the data collected by the instrument posttest questionnaire in the form of community attitudes about sanitation management after the intervention in the form of counseling related to improving water quality by way of a simple water filtration.

Categories of public attitudes strongly disagree and disagree obtain a percentage of 0.00%. Categories of public attitudes less amenable obtained percentage of 50.00% with a frequency of 25 out of a total of 50 respondents. Categories of public attitudes agree acquired a percentage of 50.00% with a frequency of 25 out of a total of 50 respondents. The community attitudes after the intervention in the form of counseling related to improving water quality by way of a simple water filtration obtained good balance between the attitude of society who less amenable and agree.

Inferential Analysis Research results

Paired t-test usually test the difference between the two observations. Paired t-test was usually done on the subject that is tested on the situation before and after the process, or in pairs, or a similar subject. Moreover, paired t-test results for the knowledge of knowledge about sanitation management before and after the intervention in the form of counseling related to improving water quality by way of a simple water filtration by using audio-visual media can be seen in the table below:

Table 2. Paired Samples Statistics Community knowledge before and after counseling sanitation with audio-visual media

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|--------|---------|----|----------------|-----------------|
| Pair 1 | Before | 14.7600 | 25 | 1.26754 | .25351 |
| | After | 17.5200 | 25 | 1.38804 | .27761 |

Table 2 above shows that the average and std. deviation of knowledge before and after counseling. Before the counseling by using audio-visual media the average (mean) level of knowledge of 25 samples were obtained 14.7600. Values obtained

standard deviation 1.26754. While after counseling by using audio-visual media knowledge value average (mean) is 17.5200 and standard deviation value of 1.38804.

Table 3. Paired Samples Correlations Community knowledge before and after counseling sanitation with audio-visual media

| | | N | Correlation | Sig. |
|--------|------------------|----|-------------|------|
| Pair 1 | Before and After | 25 | .669 | .020 |

The test results showed that the correlation between the two variables is equal to 0.669 with the sig of $0.020 > 0.05$. This shows that the correlation between the average level of knowledge before and after the counseling is strong and significant.

Table 4. Paired Samples Test of Community Knowledge before and after counseling sanitation with audio-visual media

| | | Paired Differences | | | | t | df | Sig. (2-tailed) | |
|--------|-----------------|--------------------|----------------|-----------------|---|---------|-------|-----------------|-------|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | | | | Upper |
| Pair 1 | Before After | 2.7600 | 1.71464 | .34293 | 3.46777 | 2.05223 | 8.048 | 24.000 | |

From the data in Table 4 above it is known that value t-count $8.048 >$ t-table value of (0.05; 24) was 1.711 with sig $0.000 > 0.05$. Because t-count $>$ t-table and sig < 0.05 then it can be concluded that there are significant differences between the community attitudes before and after the counseling of sanitary by using audio-visual media.

Based on the results of research and analysis paired with some theories Bloom in Mujiono (Dimiyati, 1994), there is a strong correlation and significant to the domain attitudes that given to the public with an indicator in the form of cognition that is able to think about the counseling that is delivered with the medium of film and to receive the response as a public response to the counseling of improvement water quality.

While the public response to counseling before and after the movie media there are significant differences this has been revealed by Notoatmodjo (2007) in the field of environmental health is indispensable knowledge of environmental sanitation in order to improve environmental health conditions of the community

Azwar (1996) stated that efforts oversight of environmental health factors need proof by the fact that can be observed by the public so that the counseling to the medium of film showed a justification that the muddy water mixed with a very simple can turn into clear and healthy. One proof of mental frontier Chiras (1992), that science and new technology will solve environmental problems.

Furthermore, the results Paired t-test for knowledge of knowledge about sanitation management before and after the intervention in the form of counseling related to improving water quality by way of a simple water filtration by using media images can be seen in the table below:

Table 5. Paired Samples Statistics Community knowledge before and after counseling sanitation with media images

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|--------|---------|----|----------------|-----------------|
| Pair 1 | Before | 14.7600 | 25 | 1.36260 | .27252 |
| | After | 17.2800 | 25 | 1.42945 | .28589 |

From the data in Table 5 above it is shows that the average (mean) and standard deviation of knowledge before and after counseling. Before the counseling by using audio-visual media the average (mean) level of knowledge of 25 samples were obtained 14.7600 with a standard deviation 1.36260. While after counseling by using audio-visual media amount of knowledge level average (mean) is 17.2800 with the standard deviation 1.42945.

Table 4. Paired Samples Correlations Community knowledge before and after counseling sanitation with media images

| | | N | Correlation | Sig. |
|--------|------------------|----|-------------|------|
| Pair 1 | Before and after | 25 | .685 | .014 |

The test results showed that the correlation between the two variables is to 0.685 with the sig of $0.014 < 0.05$. This shows that the correlation between the average level of knowledge before and after the counseling is strong and significant.

Table 5. Samples Test Paired community knowledge before and after counseling sanitation with images media

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|--------|-----------------|--------------------|----------------|-----------------|---|--------|---------|---------|-----------------|
| Pair 1 | Before After | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| | | | | 2.52000 | 1.41774 | .28355 | 3.10522 | 1.93478 | 8.887 |

From Table 5 above were obtained t-count $8.887 > t$ -table 1.711 of $(0.05; 24)$ with sig $0.000 < 0.05$. Because t -count $> t$ -table and sig < 0.05 then it can be concluded that there

are significant differences between the level of community knowledge before and after the counseling of sanitation by using media images.



Figure 2. The quality of water wells that do not meet health requirements

Conclusion

From the research result it can be seen that the tendency of public attitudes by counseling higher by using audio-visual media compared with using images media. This tendency can be seen from the mean value of counseling to the audio-visual media obtained at 2.7600 is greater than the mean value of counseling with media images were obtained by 2.52000 and then from the value $t\text{-count} > t\text{-table}$ show significant differences.

Descriptively attitude of community who have higher education better level of knowledge about the knowledge of Sanitation and Environmental Health, compared to community with low education. There are differences in attitudes to people who are low-level knowledge with the community that a high level of knowledge in the District Tallo Makassar City on Sanitary and Environmental Health.

References

- [1] Azwar, Azrul. 1996. *Pengantar Ilmu Kesehatan Lingkungan*. Jakarta: Mutiara Sumber Widya.
- [2] Chiras, Daniel D. 1990. *Lessons from Nature : Learning to Live Sustainably on The Earth*. Washington D.C. Island Press.
- [3] Dimyatidan Mudjiono, (1994); *Cognitive domain and affective domain*. Jakarta: Rineka Cipta.
- [4] Notoatmodjo, Soekijo. 2003. *Ilmu Kesehatan Masyarakat (Prinsip – Prinsip Dasar)*. Jakarta. Rineka Cipta.
- [5] Notoatmodjo, Soekidjo. 2007. *Promosi Kesehatan dan Ilmu Perilaku*, Jakarta: Rineka Cipta.

- [6] Nursalam dan Siti Pariani. 2001. *Pendekatan Praktis Metodologi Riset Keperawatan*. Medika Salemba.
- [7] Profile of Health Office of Makassar City. 2013. Tentang kondisi sanitasi dan kesehatan lingkungan di Kecamatan Rappocini Kota Makassar.
- [8] Rauf, Bakhrani. 2000. *Pembinaan Pengetahuan dan Sikap Lingkungan Masyarakat dalam Rangka Peningkatan Kualitas Lingkungan*. Makassar. Universitas Negeri Makassar.
- [9] Sumantri. 2010. *Pengelolaan Sampah Padat*. Penerbit Buku Kedokteran EGC, Jakarta.
- [10] The Law. No. 23 tahun 1992. *Tentang Kesehatan*. Jakarta. Kementerian Kesehatan RI.
- [11] The Law. No. 36 tahun 2009. *Tentang Upaya Kesehatan Lingkungan*. Jakarta. Kemenkes RI.
- [12] The Regulation of Ministry of Health. No. 416 tahun 1990. *Tentang Syarat-Syarat Kualitas Air Bersih*. Jakarta. Kemenkes RI.
- [13] The Regulation of Ministry of Health. No. 492 tahun 2010. *Tentang Syarat-Syarat Kualitas Air Minum*. Jakarta. Kemenkes RI.
- [14] WHO Unicef Joint Monitoring Program. 2004. *Tentang MDG mid-assessment report Water R. Lym*. Environmental health.

