

Analysis of The Psychological Adaptation of Payangan Coastal Communities Through The Roy Adaptation Model

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Abstrak

Perubahan iklim yang ekstrim dan tidak menentu menyebabkan masyarakat pesisir mengalami kekhawatiran, terutama bagi keluarga yang bermata pencaharian sebagai nelayan. Adaptasi psikologis diperlukan untuk mengatasi perubahan hidup. Tujuan dari penelitian ini adalah untuk menganalisis kemampuan adaptasi masyarakat pesisir Payangan dengan pendekatan model adaptasi Roy. penelitian ini menggunakan desain analisis deskriptif dengan pendekatan cross sectional. Sampel yang digunakan dalam penelitian ini adalah 102 responden yang tinggal di pesisir Pantai Payangan dengan menggunakan teknik consecutive sampling. Penelitian ini menggunakan uji regresi logistik. Didapatkan hasil adaptasi psikologis masyarakat pesisir Payangan yang dipengaruhi oleh beberapa faktor yaitu jenis kelamin, pendidikan, dan pendapatan. Jenis kelamin berpengaruh positif terhadap adaptasi psikologis karena karakter yang tidak menetap dalam diri individu menyebabkan kestabilan emosi dan kemampuan mencari pemecahan masalah yang rasional rendah. Pendidikan berpengaruh positif terhadap adaptasi psikologis karena ketidakmampuan aktivitas otak dalam berpikir yang berdampak pada kemauan belajar dan kemampuan membandingkan masalah yang rendah. Pendapatan juga berpengaruh positif terhadap adaptasi psikologis akibat kekhawatiran masyarakat terhadap cuaca yang tidak menentu, pendapatan yang rendah, dan kondisi alam yang tidak menentu. adaptasi psikologis masyarakat pesisir Payangan tergolong rendah sehingga perlu perhatian khusus untuk meningkatkan kemampuan beradaptasi mereka.

Kata Kunci: Adaptasi Psikologi; Model Adaptasi Roy; Nelayan,

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Abstract

Extreme and erratic climate change causes coastal communities to concerns experience, especially for families with livelihood as fishermen. Psychological adaptation was needed to cope with life changes. The purpose of this study was to analyze the adaptability of Payangan Coastal Communities used Roy adaptation Model approach. this study used descriptive analysis design with cross sectional approach. The sample used in this study were 102 respondents who live on the coast of Payangan Beach using a consecutive sampling technique. This study used logistic regression test. The results obtained psychological adaptation in Payangan Coastal Communities influenced by several factors, namely gender, education, and income. Gender has a positive effect on psychological adaptation because of the character that does not settle in the individual, caused emotional stability and the ability to seek rational problem solving was low. Education has a positive effect on psychological adaptation due to the inability of brain activity in thinking that affects the willingness to learn and the ability to compare problems were low. Income also has a positive effect on psychological adaptation due to public concerns of erratic weather, low income, and uncertain natural conditions. the psychological adaptation of the Payangan Coastal Communities was low, so special attention is needed to increase their adaptability.

Keywords: Fishermen; Psychological adaptation; Roy adaptation model

INTRODUCTION

Indonesia called a maritime country because it has the longest coastline in the world after Canada (the World Factbook, 2016). Indonesia is also set to become the sixth country in the world with the largest number of islands (Nurhadi, 2021). The data shows that Indonesia has enormous natural resources in the waters and fisheries sector, such as marine fauna, mining and natural gas, clumps and occasional reefs, as well as coastal and marine aquaculture (mariculture) activities. So that human activity was carried out in this field. Sodikin (2016) states that at least about 60% or 140 million of Indonesia's population live and move within 50 kilometers of the coast. Another study states that 65% of Indonesia's population lives and lives around coastal areas and the sea (Dahuri, 2018), thus the need for special attention for some parties to the people who live on the coast.

Indonesian waters have abundant marine resources. Although Indonesia is a fairly large maritime country with a modernization of the fishing world that has

been going on for quite a long time, but if you look at the realities that exist in coastal communities, this still shows that modernization in the region has not been fully realized as expected. The problems faced by coastal communities are very complex, including related to health, poverty, damage to coastal resources, and climate change (Widuri, 2012). Health problems that often occur are infectious diseases (diarrhea, cold cough, and itching), non-infectious diseases (hypertension, coronary heart disease, stroke, diabetes mellitus, and stroke), as well as psychological diseases (anxiety and post-traumatic stress) (Latif, 2017).

Poor and changeable natural conditions accompanied by thunderstorms, heavy rains, strong winds and waves make people who live on the coast feel uneasy. These conditions also affect fishermen difficulty to work, considering the majority of coastal community work as fishermen. This makes coastal communities worried because their income will decline and their safety is threatened. These conditions make it difficult for

people to adapt to unfavorable conditions. Andriani & Nuraini (2021) said that if a person experiences stress due to life pressure problems such as those experienced by coastal communities, then the body will show several psychological responses to the stress faced, causing several disorders such as changes in cognition, emotions, and social behavior. Impaired cognition in particular in fishing workers will result in memory paralysis. This happens because of the pressure experienced by fishermen due to continuous pressure resulting in more severe

Adaptability is needed by coastal communities due to uncertain climate change. Roy's adaptation Model views humans as biopsychosocial beings as a whole, and in meeting their needs humans are always faced with complex problems that require an adaptation or adjustment. Roy's adaptation Model explains that every human being will behave something with his needs so that the human being responds through a certain effort or behavior. Roy explained that human responses to stressors are adaptive and maladaptive.

Ermawan (2014); Wibowo & Satria (2015) explained that the factors that affect adaptation are the characteristics of fishermen consisting of age, education level, amount of income, technology, length of work, sea experience, and social relationships. Adaptation factors of coastal communities are grouped into two, namely characteristics and perceptions of the community. Characteristics of the community is the background owned by the community. Characteristics affect the selection of adaptation strategies because it is related to the availability of resources owned (Putra, 2014). Public perception is related to the risks posed and influential in the selection of adaptation strategies (Khan et al., 2020).

According to Wardani (2017) states that the problems experienced by the people around peisisr Beach is not only

related to the environment, such as the sea with great risk and uncertainty of large waves, rainstorms with strong winds and various other biotic problems. In addition, it concerns social issues, about competition between fishermen both individually and in groups, the seizure of fishing operations, and welfare due to economic uncertainty experienced. The failure of adaptation in coastal communities will affect the fulfillment of basic human needs according to Abraham Maslow, namely the need for safety and comfort. Security is related to the state of being free from physical and psychological injuries, while Comfort is related to the condition in which the individual experiences unpleasant sensations due to a stimulus. Adaptation is related to the need to be safe and comfortable because it is influenced by the psychological condition of the individual so that he is able to adjust to even difficult conditions. The inability to meet the needs of safe and comfortable will cause individuals to be unable to continue meeting the next need, namely the need for appreciation and self-actualization. The problems of coastal communities face extreme weather changes including health schemes and Community Services. Efforts to improve health status is one of the services to the community that can be done. The explanation above motivated the author to conduct further studies on the analysis of psychological adaptation of Payangan Coastal Communities through roy adaptation model approach in Jember.

METHOD

This study used descriptive-analytic research design with cross-sectional approach. This study was conducted on people who live on Payangan Coastal Communities as many as 102 respondents. This study was conducted for 2 months by collecting data used questionnaires. Sampling was conducted by selecting according to inclusion criteria, namely people who live on the coast, have family

members who work as fishermen, aged 20-80 years, and willing to be respondents. Samples were taken by consecutive sampling method. This method was carried out by means of all subjects who come and meet the selection criteria were included in the study until the required number of subjects was met. The research procedure begins with a preliminary study then followed by requesting permission from Bakesbangpol Jember, then permission in Ambulu district to Sumberejo Village Head. The research instrument used a modified psychological adaptation questionnaire. The number of questions on the questionnaire as many as 20 questions consisting of points about emotional stability in the face of problems, the ability to solve problems based on rational considerations, being realistic and objective in solving problems, willingness to learn something that is being faced, and the ability to compare the experiences of oneself and others. The questions in the questionnaire are arranged based on favorable and unfavorable questions. This type of question was spread over 20 questions with a total of 12 favorable questions and 8 unfavorable questions. Data analysis was carried out after the questionnaire results were obtained. The author uses the code on each respondent. Research test using logistic regression with alpha value $< 0,05$.

This research has ethical approval from Komisi Etik Penelitian Kesehatan (KEPK) Fakultas Ilmu Kesehatan Universitas Muhammadiyah Jember No. 0180/KEPK/FIKES/XII/2023.

RESULT

Characteristics of respondents in this study is the community in the hamlet Watu Ulo Sumberejo District, Jember, aged 20-80 years, has one family who works as a fisherman, willing to be respondents, physically and spiritually healthy. Based on the research results, the results were obtained.

Table 1. Distribution of Respondent

Distribution of Respondent	n	%
Age		
a. 20-30	12	11,8
b. 31-40	38	37,2
c. 41-50	29	28,4
d. 51-60	15	14,7
e. 61-70	6	5,9
f. 71-80	2	2,0
Total	102	100
Gender		
a. Male	79	77,5
b. Female	23	22,5
Total	102	100
Leaving with		
a. Family	90	88,2
b. Only with partner	7	6,9
c. Alone	5	4,9
Total	102	100
Length of stay		
a. 0-10	1	1,0
b. 11-20	11	10,8
c. 21-30	22	21,6
d. 31-40	32	31,4
e. 41-50	19	18,6
f. 51-60	10	9,8
g. 61-70	5	4,9
h. 71-80	2	2,0
Total	102	100
Education		
a. Not getting an education	26	25,5
b. Elementary School	56	54,9
c. Junior High School	20	19,6
d. Senior High School	0	0
e. College	0	0
Total	102	100
Income		
a. Low	53	51,9
b. Enough	42	41,1
c. High	7	7
Total	102	100

Table 1 shows that the majority of respondents are 31-40 years old, male, live with family, and have lived on the coast for 31-40 years, have a primary school education background, and and get income amount 1.000.000-2.000.000 per month.. While the distribution of variables based on the results of the questionnaire was obtained.

Table 2. Distribution Variables Respondent

Respondent Category	n	%
Emotional stabilization		
a. Good	3	2,9
b. Enough	26	25,5
c. Low	73	71,6
Total	102	100
Problems solving rationally		
a. Good	3	2,9
b. Enough	27	26,5
c. Low	72	70,6
Total	102	100
Realistic and objective		
a. Good	16	15,7
b. Enough	1	1,0
c. Low		
Total	102	100
Learning ability		
a. Good	1	1,0
b. Enough	11	10,8
c. Low	90	88,2
Total	102	100
Ability to compare experiences		
a. Good	14	13,7
b. Enough	17	16,7
c. Low	71	69,6
Total	102	100

Table 2 shows that based on the determinant variables of psychological adaptation of Payangan Coastal Communities, the majority have low

emotional stability, low rational problem solving, good in behaving realistically and objectively, low learning ability, and low ability to compare own experience with others. The results showed that the emotional stability of individuals living in Payangan Coastal Communities was low. This can be influenced by uncertain natural conditions, unstable economic conditions, and natural disasters. An unstable emotional state can be affected by the state of an individual who is not able to rationally seek a solution to the problem. This condition can also be supported by a lack of willingness to learn, as well as the inability of individuals to compare their own and other's experiences. This condition can caused by individuals have poor psychological adaptation or known as maladaptive, which is the condition of individuals who are unable to solve problems in a positive way.

Table 3. Adaptation Psychology Respondent

Adaptation Psychology	n	%
Adaptive	37	36,3
Maladaptive	65	63,7
Total	102	100

Table 3 shows that based on analysis of psychological adaptation in individuals in Payangan Coastal Communities were maladaptive. This condition indicates that the individual is less able to adjust to the surrounding environment. This condition can be influenced by less erratic weather changes that make fishermen experience obstacles in making a living, thus affecting daily income.

Table 4. Logistic Regression Test

Demographics	Adaptation psychology
Age	0,630
Gender	0,142
Leaving with	0,739
Length of stay	0,923
Education	0,299

Income	0,114
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The test results showed that gender and education have a positive effect on the psychological adaptation of Payangan Coastal Communities. The male does not always have good psychological adaptability compared to women. This leads to emotional stability, willingness to learn, and the ability to compare one's own experiences and those of others that are less good. Uncertain income conditions also cause individuals to worry about the sustainability of their lives. These conditions can affect the individual's inability to find a rational solution to problems, so that the psychological adaptation obtained is maladaptive.

DISCUSSION

Psychological adaptation in this study is an individual's ability to adjust to the environment, especially with regard to psychological conditions in people who live on Payangan Coastal Beach. Psychological adaptation aims to cultivate defense mechanisms in the hope of protecting oneself or surviving in uncertain conditions due to the stressors faced. Psychological adaptation requires individuals to be able to cope with the demands of a diverse environment, especially mental responses and behavior in order to overcome conflict and achieve harmony between the two (Devi, Y. R., & Fourianalisyawati, 2018); (Rahma & Nurchayati, 2021). Roy's adaptation states that there are two conditions in which individuals respond to stressors, namely adaptive and maladaptive. Adaptive is a positive response when experiencing problems, while maladaptive is a negative response shown by individuals when experiencing problems. The inability to adapt to the environment will make individuals become stressed and have maladaptive coping.

The result in this study is to determine how much the psychological adaptation of people living on the Payangan Coastal

Beach. The results showed that the majority of Payangan Coastal Communities have maladaptive coping. This coping shows that society is not able to adapt psychology well. The results of the study are in line with the results of research Alberth et al., (2022) which shows that the coastal communities of Ohoi Uat and Ohoi Weduarfer have poor adaptability, which is caused by fairly frequent sea water rises, the occurrence of coastal erosion and seawater intrusion, the impact of infrastructure in coastal areas, rising sea surface temperatures, and erratic changes in weather patterns. These factors are in line with the causes of Payangan Coastal Communities who are not able to adapt well to psychology, namely erratic weather, low income, and natural conditions that are not conducive.

The process of psychological adaptation in humans begins with the presence of stressors in the body. The ability of individuals to adapt will change the negative stressors into positive, but in conditions where individuals are not able to adapt properly, the body will experience stress. This condition is described as a clock with an alarm system that does not stop until the power runs out by itself. General Adaptation Syndrome (GAS) explains that there are three stages of individuals in dealing with stressors, namely the alert reaction stage, the resistance stage, and the sudden fatigue stage. The alert reaction occurs for self-preservation, which is initiated by the brain autonomously struggling to escape (Nevid, Rathus & Greene, 2003). This reaction if it occurs and is not handled will cause sudden fatigue, so it is not able to respond properly. This is why individuals are not able to have a good psychological adaptation.

The psychological adaptation component in this study was built by the condition of individual emotional stability, the ability to find problem solving, the ability to think rationally and objectively about a problem, the willingness to learn, and the ability to

compare one's own experience with the experience of others. The results showed that the ability to think rationally and objectively on a problem in people living on the coast of payangan was good, while the other components are of low value. The results of the study can be concluded that people living on the coast of payangan have a low psychological adaptability that tends to behave maladaptively. Maladaptive is a condition in which the individual is unable or difficulty in adjusting to new conditions. If viewed from the length of stay on the coast that the majority have lived for 31-40 years, the community actually has a tremendous experience. This condition has changed since the Covid-19 pandemic which has caused many changes to occur, especially unstable economic conditions. This condition causes people to experience concern, especially to meet their daily needs. In addition, changes in weather and natural conditions that lately erratic cause people can't go to sea freely, resulting in an impact on the economic condition of the local community.

The results of logistic regression test showed that there is a positive influence between income each month with the ability to adapt the psychology of Payangan Coastal Communities. These results are also in line with the results of the study of Alberth et al., (2022) which states that low income has a positive effect on the adaptability of coastal communities. This is due to the feeling of worry Felt by fishermen and their families due to unpredictable weather changes, so that the adaptation strategy cannot be maximized. This concern is what causes the adaptability of public psychology is low, so there needs to be special attention to various parties.

The results of logistic regression test also found that gender has a positive effect on the psychological adaptation of Payangan Coastal Communities. Gender in this study the majority are men. Sex in general has certain biological and character traits,

where biological characteristics can't change but the character does not settle. In men, the biological characteristics seen are having a large tall body, having a beard, and a large voice, while the character in men is generally thinking rationally, strong, intelligent, brave, and superior (Mufidah, 2013). Moerti (2012) added that characters are interchangeable traits, meaning that men can also have characters like women, namely emotional, weak, and sensitive. The existence of this sedentary character causes Payangan Coastal Communities to have low psychological adaptation.

The low condition of psychological adaptation influenced by individual character is also supported by the results of research which states that the emotional stability of Payangan Coastal Communities was low. This condition is in accordance with the results of Sembayang (2015) research which says that emotional stability in men and women there is no significant difference, but nevertheless men have lower emotional stability which is 79% while in women 83.3%. The results showed that although men seem to have better emotional stability than women, but in reality the character is not always settled. Thus it can be concluded that the male community on the coast of payangan has a low emotional stability that affects the psychological adaptation.

Low emotional stability in men can affect their ability to find rational solutions to problems. The results of logistic regression test showed that the ability of individuals to seek rational problem solving is low. Unstable emotions can affect a person's brain's ability to think rationally, especially in finding solutions to problems. These results are in line with the results of Giri (2020) research which states that emotions accompany individuals to think with prejudice, very personal, and irrational. Unstable emotions are reflected in the verbalizations used and can be influenced by the surrounding environment. Thus it can be concluded that

the ability to find a solution to the problem rationally low can be influenced by emotional instability, and affect the ability of psychological adaptation of Payangan Coastal Communities.

The results of logistic regression test also found that education has a positive effect on the psychological adaptation of Payangan Coastal Communities. The results showed that the majority of public education is primary school graduates. This can have an effect on the low willingness to learn and the ability to compare problems with others. Education is a major milestone for a person to obtain a better life. A person with inadequate education will affect his desire to become better, one of which is by learning. This learning can be in the form of formal learning or from the experience of others. The results of the study say that there is a positive influence between education and a person's adaptation ability. A good education will help individuals to adapt easily because they feel capable with their supplies and experiences. Thus it can be concluded that inadequate education in Payangan Coastal Communities can lead to low psychosocial adaptation.

CONCLUSION

Psychological adaptation is an ability that individuals must have to defend themselves from a difficult environment. Psychological adaptation in Payangan Coastal Communities based on research results influenced by several factors, namely gender, education, and income. Gender has a positive effect on psychological adaptation because of the character that does not settle in the individual, causing emotional stability and the ability to seek rational problem solving is low. Education has a positive effect on psychological adaptation due to the inability of brain activity in thinking that affects the willingness to learn and the ability to compare problems are low. Income also has a positive effect on psychological adaptation due to public

concerns due to erratic weather, low income, and unfavorable natural conditions. It can be concluded that the psychological adaptation of Payangan Coastal Communities was low, so there needs to be special attention to the various parties. The suggestion for the next researcher is to strengthen the analysis of the income factor, where this factor is the factor that most positively affects the conditions of adaptation to the psychology of society. The government should help fishermen find strategies to increase their income. Health workers need to contribute to managing stress and helping to improve psychological adaptation. There needs to be training and health education to improve cognitive, especially the willingness to learn and improve the ability to compare problems to get a better life.

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