

Trust and Occupational Safety Behavior Related to Decompressive Diseases on Bajo Ethnic Divers

Kepercayaan dan Perilaku Keselamatan Kerja Terkait Penyakit Dekompresi pada Penyelam Etnik Bajo

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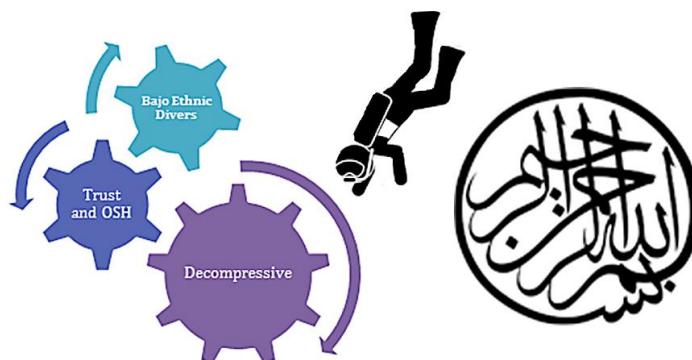
Abstract

The total area of Indonesian waters exceeds the land area, so the sea becomes one of the land community's livelihoods. Majority of the Bajo ethnic community work as traditional diver fisherman. This study examined trust community and their occupational safety and health behavior related to decompression sickness in Ethnic Bajo Divers. This type of research was qualitative, using an ethnographic study approach. Key informants in this study were ethnic Bajo divers who experienced and did not have paralysis. Data were collected through observation, in-depth interviews, documentation, sources, methods, and time triangulation. The beliefs and traditions of ethnic Bajo divers were related to safety and prevention. Decompression was before diving, asking for safety from the Almighty Creator by saying greetings and *basmalah* and praying before diving, which was a form of permission to The Guardian of the Sea. The Personal Protective Equipment that must be used were glasses (wooden/traditional glasses or glasses Ventara/modern). Decompression was understood as a disease cold with symptoms of cramps in the lower limbs obtained the result of diving for a long time at a certain depth to find seawater that was yellow like oil and very cold. Bajo tribe divers perform decompression treatment based on local wisdom and instill occupational health and safety behaviors and convince themselves by praying and saying *basmallah* before diving.

Abstrak

Luas wilayah perairan Indonesia melebihi luas wilayah daratannya, sehingga laut menjadi salah satu lahan pencaharian masyarakat. Masyarakat etnis Bajo mayoritas berprofesi sebagai nelayan penyelam tradisional. Penelitian ini bertujuan untuk mengkaji Kepercayaan dan Perilaku K3 Terkait Penyakit Dekompresi pada Penyelam Etnis Bajo. Jenis penelitian adalah kualitatif menggunakan pendekatan studi etnografi. Informan kunci dalam penelitian ini adalah penyelam etnis Bajo yang mengalami dan yang tidak mengalami kelumpuhan. Pengumpulan data dilakukan melalui, observasi, wawancara mendalam, dan dokumentasi, serta dilakukan triangulasi sumber, metode dan waktu. Kepercayaan dan tradisi penyelam etnis Bajo terkait keselamatan sekaligus pencegahan Dekompresi adalah sebelum menyelam memohon keselamatan kepada Sang Maha Pencipta dengan mengucap salam dan basmalah serta berdo'a sebelum menyelam yang merupakan salah satu bentuk izin kepada Sang Penjaga Laut. Alat Pelindung Diri yang wajib digunakan adalah kacamata (kacamata kayu/tradisional atau kacamata Ventara/modern). Dekompresi dipahami sebagai suatu penyakit dingin dengan gejala kram pada tungkai bawah yang diperoleh akibat menyelam dalam waktu lama pada kedalaman tertentu sehingga menjumpai air laut berwarna kuning seperti minyak dan sangat dingin. Penyelam suku Bajo melakukan pengobatan dekompresi berbasis kearifan lokal serta menenangkan perilaku Kesehatan dan Keselamatan Kerja dan meyakinkan diri dengan berdo'a serta mengucap basmalah sebelum menyelam.

Graphical Abstract



Keyword

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INTRODUCTION

Indonesia is a maritime state with a 3,257,357 km² of water area. In addition, Indonesia consists of various ethnic groups with their respective cultural characteristics as a cultural identity (Auwalin, 2020). As a maritime country or maritime country, Indonesia has a wealth of maritime culture without losing the traditions and beliefs of local maritime wisdom (Maulidyna et al., 2021). Bone Regency with a coastline stretching 138 km covering an area of 101,638 Ha. Data from the 2013-2015 Ministry of Maritime Affairs and Fisheries shows that Bone Regency has abundant marine and fisheries potential reaching 18,578.4 tons/year. The local community's utilization of this potential resource could be more optimal (Pemerintah Kabupaten Bone, 2017).

Based on European data, the incidence of divers who experience injuries due to diving is estimated at 10-100 people (Ull et al., 2021). The number of cases of diving accidents ranges from 500-600 cases in Asia-Pacific (excluding Japan) (Wahyu et al., 2020). Data from the Sub-Director General of Epidemiological Surveillance, Immunization, and Matra Health until 2008 in Indonesia showed 93.9% of 1026 divers experienced decompression sickness due to diving (Russeng et al., 2020).

Decompression sickness is a paralysis that occurs due to the release and development of gas bubbles from dissolved phases in the blood/tissues due to pressure drop due to improper diving technique (Ninokawa & Nordham, 2021). Decompression is a dangerous disease caused by several factors common among fishermen and divers. (Chabibah et al., 2022). Decompression usually occurs due to bubbles in the blood or after a decrease in environmental pressure (Moon, 2014). The diver's blood and body tissues absorb additional nitrogen from the lungs at increasing depth. If the diver ascends too fast, this excess gas will separate from the solution and produce foam. Bubbles produce mechanical and biochemical effects that cause a condition known as decompression sickness. Disease reduction is one of the potential risks associated with work (Widyastuti et al., 2019).

The Bajo ethnicity is one of the ethnic groups living in Bone Regency. Fishing fishermen or diving fishermen are the livelihoods of the Bajo ethnicity. The Bajo people still hold unique belief traditions and rituals that are performed when fishing or diving (Rahman et al., 2023). Working as a diver is one of the high-risk jobs that have a health impact. The low level of education and knowledge, the lack of facilities

and infrastructure, and the lack of understanding of occupational health and safety issues have led to increased decompression cases experienced by traditional divers (Ahdar et al., 2020).

The environment and the socio-cultural background of the community usually determine behavior in doing work. The values and cultural norms inherent in society start from an early age, so they become a reference to be guided by and used as learning material in everyday life (Keller, 2014). Undeniably, the rituals when going to shake hands are believed to be a repellent for various unwanted things, especially occupational diseases (Bradbury-Jones et al., 2018). In Indonesia, there are 1026 diver fishermen, and of them, 93.9% of divers have experienced initial symptoms due to diving, 39.5% have hearing loss, 29.8% suffer from joint pain, and 10.3% suffer from paralysis (Russeng et al., 2020). South Sulawesi Province has had cases of Occupational Diseases which have increased significantly since 2011-2014, with cases of 2,806, 2,507, 1,092, and 6,812, respectively. Besides that, Asuransi Jasa Indonesia Coop. (JASINDO) reported cases of death from Occupational Diseases in 2017-2018, with details of 13 cases in 2017 and 3 cases in 2018 (Rahman et al., 2019).

The factors that influence safe and healthy living behavior are primary, supporting, and reinforcing. Behavior can be observed in 3 domains: knowledge, attitudes, and beliefs. Socio-cultural factors in divers are the shapers of work behavior with the notion that work accidents and work-related illnesses are caused by bad luck, so there is no need for prevention. Low mastery of occupational safety and health, incomplete safety equipment, and stormy weather and health conditions are also factors causing fishermen and divers to experience accidents (Febriyanto et al., 2021; Huchim-Lara et al., 2015; Pratama et al., 2019). One of the factors causing accidents is attitudes that are not in line with sanitary hygiene at sea and do not use personal protective equipment (Degavi et al., 2021).

This research is interesting to do because it is based on a study of ethnic communities that still adhere to behaviors that are believed to have been passed down from their ancestors. Communities who live with members of their ethnic group in a particular area usually still believe in and guide things passed down from their predecessor generations. Daily activity patterns, work patterns, consumption patterns, medication patterns, and patterns of 'acceptance' of new things are usually still based on things passed

down from previous generations. Even in livelihoods, they tend to follow inherited patterns. As is the case with the Bajo ethnic community, who have always been famous for their diving abilities. Even now, the majority of ethnic Bajo are still developing the diving profession as their main livelihood. Each job has different occupational risks. Working as a diver, learning the K3 implementation patterns of divers based on local wisdom can add to the body of knowledge in the K3 field. This research made it possible to carry out this research because the research area is an area where area is only occupied by ethnic Bajo people who still make diversity their main livelihood. Preliminary observations made on the Bajo ethnic group obtained information that out of 20 traditional divers, 15 (75%) suffered from decompression sickness. Decompression in diving fishermen is something that is often experienced when doing activities in the deep sea, to fulfill the needs of their family life. Carelessness in behavior ignoring work safety practices can have fatal consequences, such as experiencing permanent disability for life. At the same time, in traditional diver communities, diving skills are passed down from generation to generation, accompanied by their beliefs based on local wisdom, without being based on standardized health and safety diving knowledge. This study examined trust community and occupational safety health behavior related to decompression sickness in Ethnic Bajo Divers.

METHODS

This type of research was qualitative, using an ethnographic study approach. This methodology was also concerned with describing people and how their behavior, either as individuals or as part of groups, was influenced by the culture or subculture in which they live. The research was conducted on the Bajo ethnic group who live in the Bajoe Village, Tanete Riattang Timur District, Bone Regency. The research was conducted from March to July 2022.

The determination of informants used a purposive sampling method. The informants in this study included key informants (divers who are local natives with a working period of ≥ 3 years) and additional informants (Bajo ethnic traditional leaders, village officials, and health workers).

In an ethnographic study, a large amount of data was collected by spending time on the research site to understand the patterns of a cultural group

best. The data collection techniques used include in-depth interviews, observation, and documentation.

Researchers were the main instrument in research. The researcher's position was one of the instruments in the research process because the researcher acts as a planner, executor of data collection and analysis, data interpreter, involved in participatory observation and then plays a role in preparing research reports. In carrying out their role, researchers had to be value-free so that the data obtained remained natural. In-depth interview guidelines containing open-ended questions, field notes, interview recordings, and documentation results during field observations are the tools used in this study.

This study used to source, time, and method triangulation techniques. Triangle of sources in this study, researchers conducted in-depth interviews with different informants. During the triangulation, the researcher conducted two in-depth interviews with each of the research informants extracting the same data. In analyzing and presenting data, what speaks was data or information from in-depth interviews and field observations, while researchers try their best to avoid making interpretations. If there was an interpretation, then this was the result of the informant's understanding of the meaning of the variable under study.

RESULTS

The informants consisted of six divers who experienced decompression, three divers who did not experience decompression, one traditional leader, one village official, and one health worker. All informants were male, except for village officials and health workers. Age variations range from 25 - 60 years. The informant's overall working life as a diver was >3 years. The last education for one diver informant was elementary school, and the rest did not attend school. As for informants who experienced decompression, the exposure duration was two to four years with type I and II decompression status. The main symptom of type I decompression was pain, especially in the joints and muscles around it, which could appear suddenly after a dive or gradually. Symptoms of type II decompression were experiencing paralysis in the lower limbs (navel to the feet) (see [Table 1](#)).

Research informants lived and worked in Bajoe Village. Informants were selected based on research criteria using targeted sampling techniques.

Table 1
Characteristics of Informants

Informants	Sex	Age (Years)	Years of Work	Long Suffering Decompression	Decompression Status	Job	Last Education
SK	Male	31	>3 years	0	No	Diver	Elementary School
S	Male	30	>3 years	0	No	Diver	Not School
D	Male	66	>3 years	0	No	traditional leader	Not School
SU	Male	25	>3 years	0	No	Diver	Not School
B	Male	60	>3 years	0	Type II	traditional figure	Not School
C	Male	27	>3 years	0	Type I	Diver	Not School
A	Male	35	>3 years	4	Type II	Diver	Not School
T	Male	39	>3 years	3	Type II	Diver	Not School
AS	Male	29	>3 years	3	Type I	Diver	Not School
P	Male	32	>3 years	2	Type I	Diver	Not School
SA	Female	49	0	0	No	Sub-district government	Graduate
A	Female	35	0	0	No	Health Worker	Bachelor

That was, we selected informants based on the criteria set by the researchers: Bajo divers, definitive guides, village officials, and health workers who agreed to be interviewed.

Divers Knowledge of Decompression Events

The work of divers has a very high risk of danger, increased work productivity refers to good and safe diving standards. Traditional divers' knowledge of the risks of hazards in high-pressure environments increases adherence to work safety standards in diving. Carelessness in complying with work safety regulations can be fatal in the form of permanent disability for the rest of his life. Meanwhile, traditional divers acquire diving skills only from generation to generation without adequate health and diving safety knowledge.

From the interviews, it was found that none of the divers knew anything about K3. They had never even heard of it. This can be seen from the results of the interview as follows:

"I do not know what safety means. What is clear is that if you want to go down, pray for safety." (SK, 31 years old, Diver, Not Decompressed)

"I do not know what occupational safety and health is. There is not any. Just Bismillah if you want to dive. There is nothing to prepare." (S, 30 years old, Diver, Not Decompressed)

Divers have never obtained the concept of occupational safety and health in theory. There has never been any counseling from the government regarding K3. However, conceptually, they have their knowledge

regarding K3, which has been believed for generations and also related to the religiosity of divers, namely in the form of prayer. From the in-depth interview excerpt above, it is known that nothing needs to be prepared except for praying and saying *basmalah* before greeting. The occurrence of decompression events needs to be better understood by divers. Their decompression is known as cramps and it has happened to many Bajo tribe divers.

The interviews found that the Bajo ethnic divers understood that decompression sickness was a cramping disease caused by diving in the deep sea with icy seawater conditions. When rising to the surface, the symptoms are headache and joint pain in the lower limbs. This is based on the results of the interview as follows.

"..The water is so deep that it cramps. There is yellow water, like oil. That was what hit my leg when it cramped. When it hits the water, it feels freezing. It just feels like that. Later, when I found out I had cramps when it was up, it kept getting cold until I could not move it. So now, you already know there is water, so you have to avoid it so you do not get cramps." (A, 35 Years, Diver, Type II Decompression)

The informant also added that the symptoms of decompression sickness or cramps when diving in seawater are only feeling very cold, then gradually becoming sick when you are on the water's surface so your feet feel stiff.

"It was a cold disease because his feet were like ice, cold, he could not feel anything. Can give ice cubes. If it still does not work, it is taken to the orderlies, given medicine." (S, 30 Years Old, Diver, Not Decompressed)

Decompression is considered a sudden 'cold' illness. More divers do not know the cause of decompression and are considered simply unlucky.

"Do not know. It seems like I am just having bad luck, or maybe I just forgot to say bismillah before going down to dive" (T, 39 years old, diver, Type II decompression)

Personal Protective Equipment (PPE)

The interviews found that the informants should have paid more attention to the completeness of personal protective equipment when diving. Almost all informants said that the price of personal protective equipment was very high, making it difficult to buy. As we all know, divers are jobs with non-permanent income, which makes divers second in terms of personal protective equipment. For the use of Personal Protective Equipment (PPE), the informant stated that some were used as equipment when diving. However, not all Personal Protective Equipment (PPE) recommendations are used. Only some of which are used are considered to provide significant benefits when diving.

"To protect myself, I use Ventara goggles and a compressor for diving provided by the retainer, but with the condition that all the caught dives must be sold to the retainer at a low price (35 thousand per kilo for cuttlefish and octopus)" (SK, 31 years, Diver, Not Decompress)

"There is nothing to protect yourself. At least for the eyes, wear glasses so that the eyes do not sting. If you do not wear glasses, you can not see. Just that." (S, 30 Years Old, Diver, Not Decompressed)

From the interviews with several informants, it is known that the mandatory PPE they must use is glasses. The majority still use wooden glasses that are made by themselves. However, some have also been sponsored by the punggawa, some of the more modern Ventara glasses. Not only that, the punggawa also sponsors the use of compressors for divers who agree to the rules and conditions determined by the punggawa in the form of sales rules that must be made to the punggawa, and the retainer determines the price. The same was stated by the customary leader, who justified the use of PPE. Because from generation to generation, they were informed about using wooden glasses. Even their sons have been taught to dive since the age of 7 and are also only armed with PPE in the form of wooden glasses.

Pre-Diving Knowledge

This question concerns the informant's knowledge of the working climate and how to go down to the seabed before diving. From the interviews, information was obtained that several informants needed to technically understand good weather for diving and the proper ways to go down to the seabed.

"I do not know how to read the direction of the wind because, as far as I know, the direction of the wind is unpredictable, so I just use my feelings. If I feel good, then God willing, I will be safe." (C, 27 Years, Diver, Type I Decompression)

In addition to the lack of knowledge about good weather, the informant added that this could be more important to know because some divers do not care about weather conditions (good or bad). They still dive.

"No matter what the weather, keep diving. The rain dives, the heat dives, that is why it is black-black. It is usually high winds now, we divers stay out to sea diving." (SU, 25 Years Old, Diver, Not Decompressed)

However, this only applies to traditional divers. For modern divers, there are considerations when the weather is not good.

"If it is raining heavily and the wind is strong, do not dive. Just pitching the tent on the boat, for fear of the compressor shutting down." (S, 30 Years Old, Diver, Not Decompressed)

The consideration is still diving even in bad weather conditions because no one knows when the weather will improve again. Meanwhile, daily needs must still be met, and if you do not dive, then there will be no other income for the Bajo ethnic diver's family, as the following interview results show:

"None of that. Because we, the Bajo tribe, have to dive, then something can be sold for income" (S, 30 years old, diver, not decompressed)

"Anyway, go diving every day except Friday. If it is raining or it is hot, it does not matter, because if you do not go, you can't go shopping, your mother needs something to eat, it is too bad. The main thing is that on Friday, they don't go, or if a neighbor is building a house, we are called to help. Like this, they don't go to sea because they were called earlier to help build a neighbor's house on stilts. If anyone wants to raise the ula'-ula' as well, this is a sign that a neighbor wants to hold an event. We don't even go diving. But if it is just the

weather, God willing, it will still go." (T, 39 Years, Diver, Type II Decompression)

Attitudes on Prevention and Treatment

Attitudes at work determine the behavior of informants. A positive attitude will ensure the health and safety of informants while diving. This attitude will shape the informant's perception of safe and healthy work behavior. From the results of the interviews, the informants stated that regarding the attitudes and actions related to prevention and treatment that they have practiced and believed so far, some divers have a positive attitude towards the prevention and treatment measures that have been in effect and are commonly carried out in the Bajo ethnicity.

"Agree with prevention and treatment that has been passed down from ancestors" (SK, 31 years old, diver, not decompressed)

Several divers also presented prevention and treatment techniques that had been taught by their parents and surrounding families, such as the use of boiling water cat whiskers to shed urine that is clogged due to decompression in the stomach.

"Yeah, that is what I have always done. If you have cramps, ice cubes are placed on the cramped part, and you will take them home first. Later at home, continued treatment. In the past, when I had cramps, I wanted one body. Anyway, from the stomach to the feet. Until days also could not urinate. There are also people calling the new orderlies to pee. If the mother at home used to give the cat's whiskers leaves a decoction, drink lots of water. Yes, about three days. Thank God I can pee. However, the legs still cannot be shaken." (USA, 29 Years Old, Diver, Type I Decompression)

Decompression or cramps are pretty common in this area, ranging from mild effects to some who have been disabled for a lifetime until they die.

"There is no medicine to take with you when you go to sea, only food to eat. So if you feel numb in your feet, wait for them to be taken home first and then treated by the paramedics, or wait until your feet do not feel numb. (SU, 25 Years Old, Diver, Not Decompressed)

From the results of the interviews, it is known that the Bajo ethnic community does not access health services, even in severe conditions. Their pattern of treatment is to call the paramedics to come to the decompression patient's house and provide treatment. This pattern has been widely known and is the last

alternative treatment to be carried out. This is justified by the government and health workers.

"They have never accessed health services, even at the Puskesmas. They self-medicate the disease according to what they believe. It's hard for them to tell. Never mind the Puskesmas, just the schools. Ouch, only a few of them go to school. Don't really want to. It is known they are essentially how to earn money to eat. It is a pity that the people of the Bajo tribe also. However, what do you want? They always want immediate results. If you go to sea, you can immediately go home and sell something to get money. If they go to school, what do they want? They think it is just a waste of time. Moreover, he considered going to the health center a waste of money. If they are sick, they can still be detained, they will continue with their usual activities, those who go to sea will continue to go to sea, so they will still have income." (SA, 49 Years Old, Government Official)

"Never was. There is also no data on their access to the Puskesmas. It seems that they are using alternative medicine that they believe in themselves" (A, 35 years, Health Officer)

The Bajo ethnic diverse community tends not to access health services except by calling the orderlies to provide health care.

Beliefs About Diver Behavior

In the Bajo ethnic community, some divers expressed their belief in taboos/pamali and traditional rituals they knew from previous generations.

"Ritual, At 3 o'clock in the morning, the diver leaves the house. Then at 5 in the morning, we arrived at a reef called Matella, then released offerings in the form of one egg, black glutinous rice, white glutinous rice, which was added with turmeric to make it yellow, and betel leaves then stored on a banana leaf to ask permission from the inhabitants of the sea. After sunrise, then dive down around 08.00. If there are no more squid and octopus catches, move to Ciboro and Cawanni reefs until noon. Then rest at 14.00 noon, and continue diving again until 15.00. Then go home. Pamali, If the husband goes diving, the wife at home cannot say "nothing" regarding all the equipment that the husband needs when diving." (SK, 31 Years Old, Diver, Not Decompressed)

All the rituals carried out are in the form of a permit application to the sea' inhabitants' for protection and safety during diving.

"The prohibition against diving is diving on Friday if a neighbor asks for help, and there are residents

of the Bajo tribe who put up ula'ula', just that. As for the ritual, there is no so far. Anyway, let us prepare our bodies to dive healthy and strong. God willing, they will return home with products that can be sold" (F, 32 Years Old, Diver, Type I Decompression)

Other divers said there are some restrictions for going to sea, but there are no specific rituals. There are several taboos, in the form of diving to coincide with Friday, or if a neighbor in the village of the Bajo tribe asks for help, or if a neighbor puts up *ula'ula'* as a symbol, a celebration will be carried out. They do not perform any particular ritual.

DISCUSSION

This study demonstrates significant and diverse impacts related to maternal nutritional status, anemia, and hypertension during pregnancy resulting in the birth of low birth-weight infants. The research findings highlight the importance of adequate maternal nutrition before and during pregnancy, which contributes to fetal development. One measure of maternal nutritional health is weight gain during pregnancy, and maintaining appropriate weight gain is essential to ensure healthy fetal growth and birth. Inadequate or excessive nutritional status can have long-term impacts on childhood and subsequent generation development, despite the proven relationship between weight gain during pregnancy and healthy fetal growth.

Knowledge, Attitudes, and Actions

The amount of knowledge that can be obtained from the knowledge of underwater workers increases with higher knowledge. Conversely, the lower the level of education, the lower the level of understanding. The occurrence of decompression sickness, risks, causes, and effects are known only to divers. Divers understand decompression events as phenomena but need more technical knowledge to explain them (Blaselle et al., 2019).

Based on the interview results, the average education of Bajo divers is at least elementary school. Febri et al. (2017) found that in terms of human resources, most small-scale fisheries are not supported by a skilled and skilled workforce and are usually elementary school graduates with skills passed down from generation to generation. Fishermen have little knowledge about safe diving, and this can influence the presence of occupational diseases in diving (Huchim-Lara et al., 2016). In

diving activities, one does not have to have a diploma. However, fishermen must know the risks and dangers of scuba diving. A level of knowledge is needed to see the risks and hazards that will be faced in a job (Embuai et al., 2019).

Personal Protective Equipment (PPE)

The use of Personal Protective Equipment (PPE) as an essential aspect for divers when going diving. Working as a diver fisherman carries a very high level of risk. Diver fishermen usually carry out several types of dives, namely diving using a compressor as an air supply, breath-holding diving, and a few who do Scuba diving (Luecke, 2022). Informants' knowledge of using personal protective equipment (PPE) from interviews indicates this is a minor problem for divers. During the dive, the informant will only use swimming goggles, shoes, and an air compressor. The ship owner provides the protective equipment used. This situation is exacerbated by the absence of hours or depth gauges which are standard requirements in diving, as well as adequate training in healthy and safe diving, including how to plan dives and stop for decompression (Edmonds et al., 2015).

However, even though divers know that using a compressor is dangerous, divers still use it because it is common practice to use it every time they dive. Since ancient times, Bajo tribe divers have been known as reliable divers. Bajo tribe divers learn natural diving by themselves from their ancestors. Therefore, almost all Bajo people work as divers. So they need to be educated to dive properly and correctly, and they only dive using simple protective equipment that is not following the Standard Operating Procedures for Dives. As a result of using minimal equipment, these divers are at risk of decompression sickness.

Some informants also said that they wanted to use complete protective equipment. However, economic factors did not support buying complete personal protective equipment following standard operating procedures for diving. In addition, they also know the benefits of using standard protective equipment.

Beliefs About Diver Behavior

According to Wardiha (2018), belief can build traditions and customs that go hand in hand with building a social order, and violations of these traditions can create feelings of guilt in believers, which are the basis for action in life.

As for the beliefs of the informants before diving related to family rituals, it was found that several informants, before diving, first performed several rituals according to the customs of the Bajo tribe. The Bajo people believe that in the sea, there are rulers or guardians of the ocean, so before the informants dive, they give offerings to the sea dwellers such as chicken eggs, betel leaves, black sticky rice, and white sticky rice, which are added with turmeric, so they turn yellow as a repellent to repel reinforcements so that the sea dwellers keep Bajo tribe divers during diving or activities in the sea.

The beliefs of informants when diving is related to taboos while diving, and some informants, when diving in the sea, avoid some taboos while diving. Bajo tribe divers did this to realize occupational safety and health at sea. The prohibition that cannot be carried out is to be arrogant, say dirty words, or do impolite things because this can annoy or anger the sea rangers and will ultimately impact the safety of the Bajo tribe divers.

The environment's biodiversity where community groups live is a potential natural resource for producing traditional medicines that can overcome their health problems. (McKinley et al., 2017). The belief of the Bajo tribe in the treatment carried out was that some informants carried out several traditional methods or rituals to treat their paralysis. The way to do this is by *rompu-rumpi* (smoked). Even one of the traditions carried out by the informant is the *maccera* tradition (taking chicken blood to be offered to the sea guard). In addition, Bajo tribe divers believe in seeking treatment from a shaman when he is paralyzed because it has become a habit. Another way to do this is to ask for a concoction at the customary head, namely ginger rubbed on the cramped part.

Utilization of Health Facilities

Service access is not only due to distance, but there are two determining factors, namely, the determining factor for supply is the service factor, and the determining factor for demand is the user demand factor. Service factors include service organization and physical infrastructure, location, dealer availability, usage and distribution, service costs, and service quality. At the same time, the determinants of demand as a driving force for use include low levels of education and socio-cultural conditions of the community as well as low or low income (Mohajer & Singh, 2018).

In the condition of the Bajo ethnic community, access to health facilities is not 'usually' chosen for generations. The pattern shown by grandparents and their parents was alternative medicine, such as using new ice as a first-step treatment. Then proceed with an alternative treatment in the form of consumption of traditional medicines or water decoction of certain plants which are believed to be efficacious for decompression conditions such as ginger. However, if the condition does not improve, call a health worker. The figure they usually rely on is an orderly. According to a key informant, the paramedic worked at the Bone District Army Hospital who was willing to visit them when called. His visits even went as far as giving medicine and injections. Services like that are usually paid for one hundred thousand rupiahs to three hundred thousand rupiahs each time they are visited. Its reliable ability in decompression treatment has made it the last treatment alternative for the Bajo ethnic community. However, alternative medicine based on local wisdom is still the main thing to do.

The virtue of reading *basmalah* or *bismillahirrahmanirrahim* is very large. The guide to reading the *thayyibah* sentence has many meanings and secrets. The first revealed verse reads,

Recite in the name of your Lord who created" (Surah Al-'Alaq ayat 1)

The command to read mentioned in this verse requires the start of every work in the name of Allah SWT. According to Ibn Abbas, the essence of the *iqra'* command in the first verse is the command to read *basmalah*, and it is the only verse revealed to Prophet Muhammad SAW and Prophet Sulaiman AS, as mentioned in surah An-Naml ayat 30.

According to the commentators' explanations, at least four meanings are contained in *basmalah*. 1). If the word *bi* is associated with "power and help", then the speaker realizes that the power of Allah carries out the work he is doing. He asked for His help to complete his work correctly and perfectly; 2). The important secret of why *basmalah* comes first for all work is closely related to the principle of "*la ilaha illa Allah*". Namely, by making God the leading cause in all actions. Narrated by Ibn Mardawaih from Buraidah, the Messenger of Allah said,

"There has been revealed to me a ayat that was never revealed to any prophet other than Prophet Sulaiman and I, namely 'Bismillahir rahmanir rahiim'" (Ibn Mardawaih)

Allah is the Substance that must exist, the only one with the right to all praise and the most glorious name ever. When a Muslim mentions Allah in basmalah, it means that he has declared the greatest name in the universe. Two characteristics of perfection are emphasized in the *basmalah*, Ar-Rahman and Ar-Rahim. Ar-Rahman is the actual outpouring of His grace given in this world to all His creatures. While Ar-Rahim is the outpouring of His mercy in the hereafter to those who believe. So Bajo tribe divers say *basmalah* and pray before diving is a form of a request to the Creator so that they are safe while diving and get abundant sustenance.

CONCLUSIONS

The beliefs and traditions of Bajo ethnic divers regarding K3 before diving tend to be related to the Creator. The Bajo ethnic community believes that Allah SWT protects them. Saying greetings and basmalah before diving is also a form of permission to the Guardian of the Sea. However, there is no unique tradition that all divers must carry out before diving. Occupational safety and health related knowledge is understood in the level of need and the number of benefits obtained. PPE is mandatory in the form of wooden glasses (traditional) and Ventara glasses (modern). The cause of decompression has yet to be well known by divers, but divers have actions based on local wisdom regarding decompression management. The Bajo ethnic community still has minimal access to health facilities. There is no special assistance and programs from related agencies for divers, especially in increasing insight and knowledge related to Occupational safety and health and decompression. Programs for providing education and information related to K3 divers and decompression can be included at the government level and health services. Research related to providing K3 education and information on K3 divers and decompression to Bajo tribe divers is needed to map solutions to reduce the number of decompression events in divers. The strengths during the research were that the divers of the Bajo tribe were very friendly and open in providing the information needed. However, the limitations of the researchers were that some divers could not speak Indonesian.

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AUTHORS' CONTRIBUTIONS

Fatmawaty Mallapiang designed the study, formulated the concept, acquired the data, wrote the manuscript, acquired the data. Syarfaini designed the study and analyzed the data. All authors designed the study, formulated the concept, reviewed the manuscript, collected data, reviewed the manuscript, and performed the field work. Syahratul Aeni enrolled participants and performed the field work. All author revised, read and approved the final manuscript.

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COMPETING INTERESTS

The author(s) declare no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

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