



PSYCHOLOGICAL WELL-BEING IN DIVERS FROM THE LOS LAGOS REGION, CHILE

Alex Véliz Burgos¹
Alexis Soto Salcedo²
Anita Dörner Paris³
Raquel Pereira Berrios⁴
Donovan Casas Patiño⁵
Alejandra Rodríguez Torres⁶

ABSTRACT

Objectives: The objective of this study was to describe the level of psychological well-being of divers in the Los Lagos Region, Chile.

Theoretical Framework: The concept of well-being refers to how people experience their lives subjectively. It is closely related to topics such as psychological well-being, happiness, moral satisfaction and positive affects. It plays an important role in the quality of life and optimal functioning of individuals, especially in professions that face extreme working conditions and inherent risks.

Method: We worked under the positivist paradigm, a non-experimental design was used. The Ryff psychological well-being scale was applied to a sample of 134 divers in the Los Lagos Region, Chile, with an average age of 44.5 years (sd=12 years). Average diving experience of 33 years.

Results: The results revealed that divers present a high level of well-being in the dimensions of purpose in life, self-acceptance and mastery of the environment. On the other hand, in positive relationships and personal growth, low levels of these dimensions are observed. There are statistically significant differences according to the type of registration in divers and according to age group.

Discussion: In conclusion, this study provides a comprehensive view of the psychological well-being of Chilean divers, highlighting the importance of promoting strategies that strengthen positive relationships with others and personal growth.

Research Implications: Studies of this type provide data regarding the psychological well-being and mental health of a specific population to which there is little access given the work they do, allowing the development of public policies specifically aimed at these human groups.

Originality/Value: The originality of the study lies in focusing on people who carry out relevant work for the economies of countries with a wide coastline, such as people dedicated to diving.

Keywords: Psychological Wellness, Professional Diving, Mental Health, Public Health.

¹ Departamento de Ciencias Sociales, Universidad de los Lagos, Chile. E-mail: alex.veliz@ulagos.cl
Orcid: <https://orcid.org/0000-0003-1371-9041>

² Escuela de Psicología, Facultad de Medicina y Ciencias de la Salud, Universidad Mayor de Chile, Chile.
E-mail: alexis.soto@umayor.cl Orcid: <https://orcid.org/0000-0002-1304-4438>

³ Departamento de Salud, Universidad de Los Lagos, Chile. E-mail: anitapatricia.dorner@ulagos.cl
Orcid: <https://orcid.org/0000-0002-5089-8168>

⁴ Departamento de Ciencias de la Actividad Física, Universidad de Los Lagos, Chile.
E-mail: mpereira@ulagos.cl Orcid: <https://orcid.org/0000-0001-7791-9435>

⁵ Universidad Autónoma del Estado de México, México. E-mail: casas.capo730211@gmail.com
Orcid: <https://orcid.org/0000-0002-3129-9418>

⁶ Universidad Autónoma del Estado de México, México. E-mail: Aledefra2013@gmail.com
Orcid: <https://orcid.org/0000-0002-2582-0625>



BEM-ESTAR PSICOLÓGICO EM MERGULHADORES DA REGIÃO DE LOS LAGOS, CHILE

RESUMO

Objetivos: O objetivo do estudo foi descrever o nível de bem-estar psicológico de mergulhadores da Região de Los Lagos, Chile.

Referencial teórico: O conceito de bem-estar se refere à maneira como as pessoas vivenciam suas vidas subjetivamente. Está intimamente relacionada a questões como bem-estar psicológico, felicidade, satisfação moral e emoções positivas. Ela desempenha um papel importante na qualidade de vida e no funcionamento ideal dos indivíduos, especialmente em profissões que enfrentam condições de trabalho extremas e riscos inerentes.

Método: Trabalhamos sob o paradigma positivista, utilizando um delineamento não experimental. A escala de bem-estar psicológico de Ryff foi aplicada a uma amostra de 134 mergulhadores na região de Los Lagos, Chile, com idade média de 44,5 anos (DP=12 anos). Experiência média de mergulho de 33 anos.

Resultados: Os resultados revelaram que os mergulhadores apresentaram alto nível de bem-estar nas dimensões propósito de vida, autoaceitação e domínio ambiental. Por outro lado, baixos níveis dessas dimensões são observados em relacionamentos positivos e crescimento pessoal. Existem diferenças estatisticamente significativas dependendo do tipo de registro dos mergulhadores e de sua idade.

Discussão: Em conclusão, este estudo fornece uma visão abrangente do bem-estar psicológico dos mergulhadores chilenos, destacando a importância de promover estratégias que fortaleçam relacionamentos positivos com os outros e o crescimento pessoal.

Implicações da pesquisa: Estudos desse tipo fornecem dados sobre o bem-estar psicológico e a saúde mental de uma população específica que é sub-representada devido ao trabalho que realiza, permitindo o desenvolvimento de políticas públicas direcionadas especificamente a esses grupos.

Originalidade/Valor: A originalidade do estudo reside em seu foco em indivíduos que realizam trabalhos relevantes para as economias de países com extensos litorais, como aqueles dedicados ao mergulho.

Palavras-chave: Bem-estar Psicológico, Mergulho Profissional, Saúde Mental, Saúde Pública.

BIENESTAR PSICOLÓGICO EN BUZOS DE LA REGIÓN DE LOS LAGOS, CHILE

RESUMEN

Objetivos: El objetivo del estudio fue describir el nivel de bienestar psicológico de buzos de la Región de Los Lagos, Chile.

Marco Teórico: El concepto de bienestar se refiere a cómo las personas vivencian sus vidas subjetivamente. Está muy relacionado con temas como bienestar psicológico, felicidad, satisfacción moral y afectos positivos. Desempeña un papel importante en la calidad de vida y el funcionamiento óptimo de los individuos, especialmente en profesiones que enfrentan condiciones laborales extremas y riesgos inherentes.

Método: Se trabajó bajo el paradigma positivista, se utilizó un diseño no experimental. Se aplicó la escala de bienestar psicológico de Ryff a una muestra de 134 buzos en la Región de Los Lagos, Chile, con un promedio 44,5 años de edad (dt=12 años). Experiencia en buceo media de 33 años.

Resultados: Los resultados revelaron que los buzos presentan un nivel alto de bienestar en las dimensiones propósito en la vida, autoaceptación y dominio del entorno. Por otra parte, en relaciones positivas y crecimiento personal se observan niveles bajo de estas dimensiones. Existen diferencias estadísticamente significativas de acuerdo al tipo de matrícula en los buzos y en función de los años de edad.

Discusión: En conclusión, este estudio proporciona una visión integral del bienestar psicológico de los buzos chilenos, destacando la importancia de promover estrategias que fortalezcan las relaciones positivas con otros y el crecimiento personal.



Implicancias de la Investigación: Estudios de este tipo permiten aportar datos respecto al bienestar psicológico y salud mental de una población específica a que se tiene escaso acceso dado el trabajo que realizan, permitiendo el desarrollo de políticas públicas orientadas específicamente a estos grupos humanos.

Originalidad/Valor: La originalidad del estudio radica en centrarse en personas que realizan una labor relevante para las economías de los países con amplio litoral como, personas dedicadas al buceo.

Palabras claves: Bienestar Psicológico, Buceo Profesional, Salud Mental, Salud Pública.

RGSA adota a Licença de Atribuição CC BY do Creative Commons (<https://creativecommons.org/licenses/by/4.0/>).



1 INTRODUCTION

The ocean is a mysterious source of information regarding life and in coastal areas it constitutes a permanent milestone in life, influencing the social economic conditions and even the way of life of communities in various countries (Benansio et al, 2022; Camacho et a, 2016).

The Food and Agriculture Organization of the United Nations (FAO) reports that extractive activities worldwide involve approximately 60 million people, nearly 90% of whom are engaged in small-scale fishing. Asia accounts for 85% of the world's fishing and aquaculture population, followed by Africa (10%), and the remaining 4% in Latin America and the Caribbean (FAO, 2024).

In Chile, for example, considering only the artisanal fishing registry as of 2024, 11,125 people are registered as divers, in addition to those who perform this work recreationally. In the Los Lagos region, 7,066 have diving licenses, making it the geographic area of the country with the highest number of registered divers (SERNAPESCA, 2024).

1.1 THE DIVING ACTIVITY

According to Funez et al (2024) diving HE It is defined as an underwater activity carried out by people in the underwater world. with the assistance of implements that facilitate its practice. It can be classified according to its objective, so there is diving for commercial, sports, military, scientific, or research purposes .

In Chile, the fishing sector regulations state that a diver is a type of artisanal fisherman, who carries out extractive activities of hydrobiological resources by diving with air, supplied from the surface or autonomously (SUBPESCA, 2024).



A slightly more precise distinction can be made between artisanal and commercial divers. The former tend to be independent workers, diving in various locations along the coast and not necessarily supervised or dependent on an employer, where safety and accident prevention requirements are not always met. In the case of commercial divers, there are clearer regulations, so safety equipment is required to enable them to perform their work in a regulated and efficient manner (Aguilar and Calvo, 2005).

This profession has become more professional over time, and thanks to technology, we have equipment that, in the case of recreational, military, or scientific divers, has become a safe activity, incorporating a series of elements that ensure people's physical health.

Shellfish divers, artisanal divers, or others with few resources carry out this activity in order to guarantee family survival, sometimes with a trade learned at sea and without the tools to do it safely (Pereira et al, 2019).

The divers themselves note that, at the beginning of diving activity, there was not much clarity regarding specific roles, and the same individuals performed several tasks associated with fishing. They point out that during that period, basic shellfish divers were also operators, which meant that in addition to diving, they had to perform work on the surface with great physical effort, carrying sacks of food and maintaining the centers' facilities (Véliz, 2021).

However, regardless of the type of diving and the tasks associated with the profession, there is an imminent risk to the health of those engaged in this activity. The leading cause of death in diving is drowning, although other causes are known that could also be linked to the risk of death (Pereira et al., 2019; Berrios et al., 2018).

In each dive, the diver is subjected to high environmental pressures, causing a series of physiological effects associated with biophysical foundations that regulate the hyperbaric environment, such as arterial gas embolism or decompression sickness, as well as sequelae that can potentially generate some disability or cause death (Marconi, et al, 2023).

Some of the potential risks associated with the activity include drowning, hypothermia, inert gas narcosis, oxygen toxicity, arterial embolism, chronic joint dysfunction, neurocognitive impairment (Gravel et al., 2017), and inadequate decompression sickness, understood as the process that occurs in the body when ascending and decompression stops are not respected, after having dived with compressed air or with some gas mixture, generates this disease, which consists of the formation of bubbles in the tissues (Maguire et al, 2022).

It is clear that the risk of life is always present in this activity, even when every detail of the diving plan has been taken care of, since changes in environmental conditions, failures in support equipment or unforeseen circumstances at sea can affect the development of the



work, even when we have exhausted the necessary safety measures (Kovacs, 2023; Lambert, Binkley and Gaskill, 2024).

This volatility in operating conditions or the permanent existence of risk of illness or death generates continuous stressors in people who work as divers, even more so in challenging oceanic areas, so understanding these aspects of psychological well-being is essential to develop effective interventions that promote their mental health and occupational safety (Muth et al, 2022).

Well-being and psychological well-being are important in diving (Yao, Xu, & Lin, 2020). These factors positively or negatively impact the performance and health of these workers (Buzzacott et al., 2022; Van Wijk, Martin, & Firfirey, 2020; Van Wijk, 2002).

1.2 PSYCHOLOGICAL WELL-BEING

The concept of well-being is part of a broader conceptual universe: that of quality of life, which refers to how and why people experience their lives in a positive way, and is closely related to topics such as psychological well-being, happiness, moral satisfaction and positive affects (Oramas et al., 2024).

Psychological well-being is a key component of the overall state of mental health, encompassing dimensions such as self-acceptance, purpose in life, positive relationships with the environment, autonomy and mastery of the environment (Ryff and Keyes, 1995), playing an important role in the quality of life and optimal functioning of individuals, especially in professions that face extreme working conditions and inherent risks, as is the case of professional divers (Romsbotn, Eftedal, Vaag, 2022).

Psychological well-being has been associated with improved coping capacity and greater resilience in the face of stressful situations (Simsek et al, 2023), so individuals with a high level of psychological well-being tend to perform better in high-stress situations and show a greater ability to recover from adverse events (Dörner et al, 2017).

In the case of divers, psychological well-being as a protective factor is more relevant given that their work requires quick and effective decision-making under pressure, as well as the ability to remain calm in potentially dangerous situations (Kovacs, 2023).

It has been observed that these discrepancies in the dimensions of psychological well-being can influence overall mental health, potentially affecting divers' ability to manage occupational stress.



Furthermore, social isolation, long working hours, and previously developed uncertainties regarding the presence of accidents, changes in environmental conditions, or equipment failures (Maguire et al., 2022) can exacerbate the negative effects on the mental health of these workers.

Most studies on mental health and associated variables in divers have been conducted in European or North American contexts, leaving a significant gap in knowledge about the experiences and needs of divers in Latin America (Véliz, 2021). This gap is particularly relevant given that Chilean divers often work in unique conditions, such as the cold waters of the South Pacific and strong currents, which can present additional challenges to their psychological well-being.

Hence the relevance of studying the psychological well-being of Chilean divers as social beings who produce social knowledge about certain events, constructing readings that enable them to feel, act, and understand social reality (Alcota and Aravena, 2020) from their work as seafarers in a highly demanding and uncertain context.

The overall objective of this study was to describe the psychological well-being of Chilean divers, focusing on the specific dimensions of well-being identified by the Ryff Psychological Well-being Scale.

2 METHOD

The study was conducted under a positivist paradigm. A cross-sectional observational design was used, allowing for data collection at a single time point. The sample consisted of 134 divers selected through non-probability convenience sampling, based on the availability and accessibility of participants in the aforementioned region.

Data collection was carried out in several stages. Initially, informed consent was obtained from all participants, ensuring compliance with the ethical principles stipulated by the accredited Scientific Ethics Committee that approved the study.

Demographic data, including age and diving experience, were collected using a structured questionnaire. The mean age of participants was 44.5 years, with a standard deviation of 12 years, while the mean diving experience was 33 years, with a standard deviation of 11.6 years. To assess psychological well-being, the Ryff Psychological Well-Being Scale was used, which measures multiple dimensions of well-being. This scale was administered in its 39-item version validated in Spanish, adapted for the Chilean context.



Participants completed the scale in a self-directed manner, under the supervision of a trained researcher, who was present to clarify any questions that might arise during the completion process.

The collected data was stored in a secure, password-protected database, accessible only to the research team, ensuring the confidentiality of participant information.

3 RESULTS

Analysis of data collected through the Ryff Psychological Well-being Scale revealed significant patterns in the dimensions of psychological well-being among Chilean divers in the Los Lagos Region.

Table 1

Reliability of the overall scale and subscales of psychological well-being.

Psychological Well-being	Cronbach's alpha
Full scale	0.91
Self-acceptance	0.71
Positive relationships	0.72
Autonomy	0.68
Mastery of the environment	0.79
Personal growth	0.72
Purpose in life	0.84

Source: Own elaboration

Table 1 shows that the reliability values of the total scale are within normal ranges in internal consistency.

Table 2

Levels of Psychological Well-being

License plate type	Low level	Intermediate level	High level
Total Psychological Well-being			
Commercial diver	3.0%	5.2%	15.7%
Shellfish Diver	9.7%	33.6%	32.8%
Total	12.7%	38.8%	48.5%
Self-acceptance			
Commercial diver	3.0%	6.0%	14.9%
Shellfish Diver	7.5%	35.1%	33.6%
Total	10.4%	41.0%	48.5%
Positive Relationships			
Commercial diver	5.2%	8.2%	10.4%
Shellfish Diver	13.4%	37.3%	25.4%
Total	18.7%	45.5%	35.8%



	Autonomy		
Commercial diver	4.5%	9.7%	9.7%
Shellfish Diver	10.4%	46.3%	19.4%
Total	14.9%	56.0%	29.1%
	Mastery of the Environment		
Commercial diver	5.2%	6.0%	12.7%
Shellfish Diver	9.7%	36.6%	29.9%
Total	14.9%	42.5%	42.5%
	Purpose in life		
Commercial diver	2.2%	6.7%	14.9%
Shellfish Diver	11.2%	17.2%	47.8%
Total	13.4%	23.9%	62.7%
	Personal Growth		
Commercial diver	2.2%	6.0%	15.7%
Shellfish Diver	14.9%	43.3%	17.9%
Total	17.2%	49.3%	33.6%

Source: Own elaboration

The results indicate that the dimensions of purpose in life, self-acceptance, and environmental mastery achieved high levels of well-being. Although all the other dimensions scored high, autonomy had the lowest percentage when assessing a high level of psychological well-being. On the other hand, the dimensions of positive relationships and personal growth achieved levels of 18% and 17%, respectively.

Table 3

Student t-test to verify differences in levels of psychological well-being of divers according to type of diving enrollment.

PS Wellbeing	Registration	N	Average	Standard deviation	P
Self-acceptance	Commercial	32	29.5	5.3	,029
	Artisanal	102	27.1	5.1	
Positive relationships	Commercial	32	27.9	4.8	,019
	Artisanal	102	25.3	5.4	
Autonomy	Commercial	32	36.9	6.1	,001
	Artisanal	102	32.5	5.9	
Mastery of the environment	Commercial	32	29.8	6.1	,023
	Artisanal	102	27.4	4.6	
Personal Growth	Commercial	32	35.0	5.4	,000
	Artisanal	102	30.0	6.1	
Purpose in life	Commercial	32	31.5	6.1	,038
	Artisanal	102	28.9	5.8	
total well-being	Commercial Diver	32	190.6	26.9	,000
	Shellfish Diver	102	170.3	25.7	

Source: Own elaboration

In Table 3, when comparing divers by registration type, it is clear that commercial divers score higher on average in the dimensions of psychological well-being and on the total scale;



these differences are statistically significant. This may be explained in part by factors such as job stability, remuneration, and less uncertainty, which favor commercial divers.

Table 4

Student t test to verify differences between divers based on years of work experience.

Years of diving		N	Average	Standard deviation	P
Total well-being	1-20 years	45	180.20	21.52	,129
	21 and over	89	172.62	29.54	
Self-acceptance	1-20 years	45	28.11	4.62	,441
	21 and over	89	27.37	5.51	
Positive relationships	1-20 years	45	26.33	4.90	,441
	21 and over	89	25.57	5.60	
Autonomy	1-20 years	45	34.47	5.68	,149
	21 and over	89	32.83	6.38	
Mastery of the environment	1-20 years	45	28.49	4.09	,315
	21 and over	89	27.56	5.43	
Purpose in life	1-20 years	45	30.49	4.64	,134
	21 and over	89	28.87	6.42	
Personal growth	1-20 years	45	32.31	5.46	,099
	21 and over	89	30.42	6.60	

Source: Own elaboration

As can be seen in Table 4, there are no statistically significant differences between divers in the dimensions of psychological well-being or in the total scale.

Table 5

ANOVA test to verify differences in means between divers according to age.

			N	Average	Standard deviation	P
Total well-being	18-40 years old		48	182.5	20.8	,039
	41-60 years old		67	172.6	28.6	
	61 and over		19	165.5	33.3	
	Total		134	175.2	27.3	
Self-acceptance	18-40 years old		48	28.5	4.6	,291
	41-60 years old		67	27.3	5.5	
	61 and over		19	26.6	5.6	
	Total		134	27.6	5.2	
Positive relationships	18-40 years old		48	26.1	5.4	,825
	41-60 years old		67	25.9	5.4	
	61 and over		19	25.2	5.4	
	Total		134	25.8	5.4	
Autonomy	18-40 years old		48	35.1	5.5	,050



		41-60 years old	67	32.6	6.4	
		61 and over	19	31.9	6.1	
		Total	134	33.4	6.2	
Mastery of the environment		18-40 years old	48	29.0	4.2	,085
		41-60 years old	67	27.6	5.3	
		61 and over	19	26.1	5.4	
		Total	134	27.9	5.0	
Purpose in life		18-40 years old	48	31.0	4.5	,034
		41-60 years old	67	29.0	6.3	
		61 and over	19	27.1	6.9	
		Total	134	29.4	5.9	
Personal growth		18-40 years old	48	32.9	5.2	,022
		41-60 years old	67	30.4	6.2	
		61 and over	19	28.7	8.1	
		Total	134	31.1	6.3	

Source: Own elaboration

As can be seen in Table 5, when comparing divers according to their age, there are statistically significant differences in the dimensions of autonomy, purpose in life, personal growth and total psychological well-being, where the group of divers aged 18 to 40 years presents higher averages in these dimensions.

These results provide a detailed profile of the psychological well-being of Chilean divers, highlighting strengths in certain areas of their psychological life and suggesting areas that could benefit from specific interventions. The variability observed across different dimensions of psychological well-being underscores the importance of a multidimensional approach when assessing mental health in extreme work contexts.

4 DISCUSSION

The results of the study show that Chilean divers have a distinctive psychological well-being profile, characterized by high levels in the dimensions of life purpose, self-acceptance and environmental mastery, autonomy, and personal growth. A significant percentage of them are observed to have low levels of psychological well-being.

This work describes a specific pattern of psychological well-being in a population of professional divers, an area that has so far been poorly explored in the scientific literature.

Panic arising from physical or psychological stress is a common problem in reported diving incidents and accidents. Due to its effect on divers' perception, thinking, and behavior,



panic reactions are often a significant factor in the creation or escalation of problems, which can lead to injury and death. A common scenario is flight from the threat, which leads to rapid ascent (Walton, 2018).

Identifying these dimensions of psychological well-being provides a deeper understanding of how divers manage the unique challenges of their work and social environments. One possible explanation for these results may be the intrinsically meaningful nature of diving work, which often involves a deep connection with the marine environment and a sense of mission that contributes to life purpose (Redondo, Ibañez del Prado, & Cruzado, 2023).

The difference between artisanal and commercial divers could be given by the safety regulations that commercial divers follow and a kind of stability that allows them to somewhat reduce the uncertainty of the activity, something that does not occur with artisanal divers, where every day is an adventure with the sea and with life.

At the same time, autonomy may be limited by the strict regulations and protocols governing professional diving, limiting individuals' ability to act completely independently. The low level of environmental mastery can be attributed to the unpredictable and often uncontrollable nature of the marine environment. Divers must constantly confront external factors beyond their control, such as adverse weather conditions and changes in ocean currents, which can hinder their sense of control over their immediate surroundings. This result highlights the need to develop strategies that strengthen this sense of environmental mastery, possibly through specialized training and the use of advanced technology that allows for better management of adverse conditions (Ramachandran et al., 2023).

These results are consistent with previous research that has identified purpose in life as one of the key protective factors in promoting psychological well-being in demanding work contexts (Simsek et al., 2023). Previous studies have shown that a strong sense of purpose and positive social connections can act as buffers against work stress and contribute to greater resilience (Okeke, Ed emo, & Amaeze, 2022). However, unlike other professions, divers face a unique set of environmental challenges that may explain the observed differences in the dimensions of self-acceptance, autonomy, and environmental mastery. These results support previous research suggesting that divers' work environment, characterized by high physical and psychological demands, can significantly influence perceptions of self-acceptance, autonomy, and anxiety management (Dowse et al., 2019).

Workers in extreme environments often must reconcile their personal capabilities with the demands of their jobs, which can impact their sense of self-acceptance and autonomy.



However, the low levels of autonomy and personal growth observed in this study offer new insight into the specific challenges faced by divers, suggesting that the unique environmental conditions of diving may play a more prominent role in the perception of control over their environment (Carreño et al., 2020; Dowse et al., 2019).

This study provides a comprehensive view of the psychological well-being of Chilean divers, highlighting areas of strength and challenge in their well-being profile. The identification of high levels of purpose in life, along with areas for improvement in self-acceptance, autonomy, and environmental mastery, offers a solid foundation for future research and policy development aimed at improving the psychological well-being of this population. Integrating these findings into the context of existing literature highlights the importance of considering the unique characteristics of divers' work environments when developing interventions and support programs that promote their mental health and safety.

Productive activities associated with the sea in southern Chile have influenced, since ancient times, both the culture of its people and the possibilities for development and growth (Morales et al., 2023). Therefore, the well-being of its people is a matter of public health and transcends specific or transitory states of mind but also considers the life, safety and stability of people (Oramas et al., 2024).

5 CONCLUSION

These results are particularly relevant for the development of policies and intervention strategies that address the specific well-being needs of this population. The identification of poor environmental mastery suggests that divers may benefit from training programs that improve their environmental management skills and provide them with tools to manage job demands more effectively.

Furthermore, the intermediate level of self-acceptance and autonomy highlights the need to foster personal development and independence in this population, which could be achieved through psychological interventions and support programs. Further work is needed to better understand the underlying causes of the low perception of environmental mastery among Chilean divers.

Future research could explore the contextual and personal factors that contribute to this perception, as well as evaluate the effectiveness of interventions designed to improve this dimension of well-being.



Furthermore, further research could be conducted to examine the relationship between dimensions of psychological well-being and work outcomes, such as safety and performance, which could provide valuable information for the development of more comprehensive training and support programs. Further research should be undertaken to evaluate how the unique characteristics of Chilean divers' work environment, such as the cold waters of the South Pacific and strong currents, affect their psychological well-being. A longitudinal approach could be particularly useful for assessing changes in well-being over time and in response to specific interventions.

Through a detailed analysis of the dimensions of psychological well-being in this group, this study contributes to a more nuanced understanding of divers' mental health needs and provides a solid foundation for future research and policy development in the field of occupational health and well-being.

REFERENCES

- Aguilar G., I., y Calvo, M. J. (2005). Vivenciando el trabajo de los buzos mariscadores que han sufrido un accidente. *Index de Enfermería*, 14(50), 10-14.
- Alcota, P., & Aravena-Reyes, A. (2020). Desastres, memorias y bienestar de lugar en Dichato, Chile. *Interdisciplinaria*, 37(1), 17-18.
- Benansio, J. S., Funk, S. M., Lino, J. L., Balli, J. J., Dante, J. O., Dendi, D., ... & Luiselli, L. (2022). Perceptions and attitudes towards climate change in fishing communities of the Sudd Wetlands, South Sudan. *Regional Environmental Change*, 22(2), 78.
- Berríos, R. P., Mesina, F. M., Paris, A. D., & Burgos, A. V. (2018). Tipología de muertes de buzos profesionales ocurridas en Chile entre los años 2000 y 2012. *Revistas Espacios*, 39(7), 11-20.
- Buzzacott, P., Edelson, C., Chimiak, J., & Tillmans, F. (2022). Health and wellbeing of recently active United States scuba divers. *Diving and Hyperbaric Medicine*, 52(1), 16.
- Camacho Guerreiro, A. I., Ladle, R. J., & da Silva Batista, V. (2016). Riverine fishers' knowledge of extreme climatic events in the Brazilian Amazonia. *Journal of Ethnobiology and Ethnomedicine*, 12, 1-10.
- Carreño, A., Gascon, M., Vert, C., & Lloret, J. (2020). The beneficial effects of short-term exposure to scuba diving on human mental health. *International journal of environmental research and public health*, 17(19), 7238.
- Dörner, A., Riquelme, V., Véliz, A., & Ripoll, Miguel. (2017). Perfil de salud general de pescadores artesanales de la región de Los Lagos. *Revista Finlay*, 7(2), 99-106. Recuperado en 19 de enero de 2025, de http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2221-24342017000200005&lng=es&tlng=es.



- Dowse, M. S. L., Whalley, B., Waterman, M. K., Conway, R. M., & Smerdon, G. R. (2019). Diving and mental health: the potential benefits and risks from a survey of recreational scuba divers. *Diving and hyperbaric medicine*, 49(4), 291.
- FAO (2024). *Versión resumida de El estado mundial de la pesca y la acuicultura 2024. La transformación azul en acción*. Roma.
- Fúnez, M. L., Casadesús, J. M., Aguirre, F., Carrera, A., & Reina, F. (2024). Guía práctica para la investigación multidisciplinar de las muertes durante la práctica de buceo. *Revista Española de Medicina Legal*.
- Gobierno de Chile, Sernapesca (2024) Mujeres y hombres en el sector Pesquero y Acuicultor de Chile 2024. Edición N° 18 de 2024 (M&H): 1-63. Disponible en https://www.subpesca.cl/portal/618/articles-124151_recurso_1.pdf
- Gravel, S. B., Dagnault, A., Buteau, D., & Pollock, N. W. (2017). Hyperbaric Oxygen Therapy for Radiation Cystitis: Evaluation of Treatment Efficacy Seen During Post-treatment Follow-Up. *International Journal of Radiation Oncology, Biology, Physics*, 99(2), E213-E214.
- Kovacs, C. R. (2023). Scuba diving and the stress response: considerations and recommendations for professional and recreational divers. *International Maritime Health*, 74(3), 186-191.
- Lambert, D., Binkley, M., & Gaskill, Z. (2024). Underwater and scuba diving accidents. *Emergency Medicine Clinics*, 42(3), 551-563.
- Maguire, B. J., Hughes, L. M., McAdams, D. C., Gilbert, M., & Nordness, R. (2022). Health conditions among Navy divers at end of service: a retrospective cohort study. *Undersea & Hyperbaric Medicine*, 49(1).
- Marconi, M., Giglio, V. J., Pereira-Filho, G. H., & Motta, F. S. (2023). Effects of the COVID-19 pandemic on SCUBA diving experience in marine protected areas. *Journal of Outdoor Recreation and Tourism*, 41, 100501.
- Morales, L. O. S., Campoverde, J. A. Z., Bohórquez, J. G., & Loaiza, C. H. M. (2023). Perfil de la actividad pesquera y su importancia en la calidad de vida de los habitantes de Bajo Alto, El Guabo-Ecuador. *Revista de la Universidad del Zulia*, 14(41), 279-299. DOI: <https://doi.org/10.46925//rdluz.41.14>
- Muth, T., Hansen, I., Pepper, C., & Schipke, J. D. (2022). Firefighters during training as divers: physiologic and psychomental stresses. *International Journal of Occupational Safety and Ergonomics*, 28(3), 1592-1599.
- Okeke, C. I., Ede, M. O., & Amaeze, F. E. (2024). Assessment of sociodemographic and psychological well-being of primary school teachers. *Trends in Psychiatry and Psychotherapy*, 46, e20220479.
- Oramas Viera, A., Santana López, S., & Vergara Barrenechea, A. (2024). El bienestar psicológico, un indicador positivo de la salud mental. *Revista Cubana de Salud y Trabajo*, 7(1/2), 34-39. Recuperado de <https://revsaludtrabajo.sld.cu/index.php/revsyt/article/view/794>



- Pereira Berríos, R., Véliz Burgos, A., Estay Sepúlveda, J. G., D'Armas Renault, M., & Dörner Paris, A. (2019). Lesiones y fatalidades causadas por accidentes de buceo en Chile entre el 2000 al 2012. *Journal of Sport and Health Research*, 11(Supl 2):129-138.
- Ramachandran, H. J., Bin Mahmud, M. S., Rajendran, P., Jiang, Y., Cheng, L., & Wang, W. (2023). Effectiveness of mindfulness-based interventions on psychological well-being, burnout and post-traumatic stress disorder among nurses: A systematic review and meta-analysis. *Journal of Clinical Nursing*, 32(11-12), 2323-2338.
- Redondo Elvira, T., Ibanez del Prado, C., & Cruzado, J. A. (2023). Psychological well-being in palliative care: a systematic review. *OMEGA-Journal of Death and Dying*, 87(2), 377-400.
- Romsbotn, S., Eftedal, I., & Vaag, J. R. (2022). A work environment under pressure: Psychosocial job demands and resources among saturation divers. *Frontiers in Public Health*, 10, 765197.
- Ryff, C., & Keyes, C. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719-727.
- Simsek, B., Rempakos, A., Kostantinis, S., Karacsonyi, J., Rangan, B. V., Mastrodemos, O. C., ... & Brilakis, E. S. (2023). International psychological well-being survey of interventional cardiologists. *Cardiovascular Interventions*, 16(11), 1401-1407.
- Van Wijk, C. H., Martin, J. H., & Firfirey, N. (2020). Common mental health conditions among navy divers: A brief report. *Diving and hyperbaric medicine*, 50(4), 417.
- Van Wijk, C. H. (2002). Levels of anxiety and hostility in South African Navy divers. *Undersea & hyperbaric medicine*, 29(4), 271.
- Véliz Burgos, A. . (2021). Fenómeno de la marea roja en el sur de Chile y su impacto en el bienestar psicosocial de los habitantes de una caleta pesquera de la Región de Los Lagos. *Revista Notas Históricas Y Geográficas*. Vol 23, julio -diciembre: pp. 236 – 257. Recuperado a partir de <https://revistanotashistoricasygeograficas.cl/index.php/nhyg/article/view/281>
- Walton, L. (2018). The panic triangle: onset of panic in scuba divers. *Undersea & Hyperbaric Medicine*, 45(5).
- Yao, Q., Xu, F., & Lin, J. (2020). A qualitative study on pre-performance routines of diving: Evidence from elite Chinese diving athletes. *Frontiers in psychology*, 11, 193.