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1.9

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# CORRELATION STUDY BETWEEN EMOTION REGULATION AND COPING WITH DEATH WITHIN PUBLIC HEALTHCARE WORKERS

## Milagros Carbonel Torres

milagrosctorres.29@gmail.com

ORCID: <u>0009-0004-0523-5471</u>

UNIVERSIDAD SAN MARTIN DE PORRES - CHICLAYO - PERÚ

## Katherine Rossmery Hernández Enríquez

hernandezenriquezkatherine@gmail.com

D ORCID: 0009-0002-2692-5637

UNIVERSIDAD SAN MARTIN DE PORRES - CHICLAYO - PERÚ

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# **ABSTRACT**

In this study, the relationship between Emotional Regulation (ER) and Coping with Death (CD) among medical staff at a National Hospital in Lambayeque investigated. The Emotion Regulation Questionnaire, adapted for Peru, and Bugen's Coping with Death Scale, also adapted for the Peruvian context as a pilot test, were employed. Findings revealed that 14.07% of participants demonstrated high levels of ER, 69.63% exhibited moderate levels, and 16.30% showed low levels. Regarding CD, 5.9% were categorized with low levels, 83.0% with moderate levels, and 11.1% with high levels. The conclusion drawn was the absence of a significant correlation between ER and CD, as indicated by a correlation coefficient and significance level of 0.967.

**Keyword:** Death, Coping, Regulation, Emotional, Health Care Professional.

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1.9

JANUARY - MARCH 2024

Scientific Artícle

09 - 17

#### INTRODUCTION

Emotion Regulation (ER) and Coping with Death (CD) variables in healthcare professionals have been particularly relevant in recent years. Physicians, registered and nursing technicians, who spend most of their day with patients have to provide appropriate care as one of their objectives. Their work often involves facing death, as they witness patients passing away on a daily basis. For this reason, Thompson (1994) and Gros (2014) state that ER not only analyzes emotions but also regulates them by encompassing their transformation, whether these are positive or negative for the individual. Meanwhile, Lazarus et al. (1986) describe Coping with Death as an effort that encompasses cognitive, affective, and behavioral areas, guided both by internal reasons and the contexts that influence the individual. This adaptive process seeks to adjust the individual's response to their constantly changing environment.

This study investigated the relationship between ER and CD at the National Hospital of Lambayeque in 2022. The theoretical argumentation lies in identifying the correlation levels between these two variables.

Also, this study was considered important due to the increase in negative psychological factors that adversely affect healthcare workers. These professionals are experiencing anxiety, distress, sadness, and fears, among others, as a result of overwork which manifests in long working hours and in the constant exposure to the influx of patients in health facilities.

Therefore, the theories underlying the empirical evidence are presented, supported by an examination of recent findings on both global and local factors. This includes an understanding of the problematic reality that delimits the meaning of the variables chosen in the current framework, as well as a detailed explanation of the purposes and hypotheses linked to these factors.

Likewise, the description of the research is at a correlational level and aims to identify the relation among the different phenomena studied. This study is correlational because it aims to estimate the magnitude of the connection between two variables in the analyzed context (Abreu, 2012). In addition, the number of individuals or population involved, the methods of data compilation, and the means employed are specified: the Emotion Regulation Questionnaire adjusted to the Peruvian context (Gargurevich & Matos, 2010) and the Bugen's Coping with Death Scale, also adapted to the same context as a preliminary demonstration (Zambrano Vargas, 2019).

The process includes data collection and analysis, concluding with the relevant ethical considerations.

The results are crucial as they address the research question and the stated objectives, which aims to define the correspondence between ER and CD in healthcare workers at the National Hospital of Lambayeque. Through the use of descriptive and correlational statistics, the null hypothesis was evaluated, which suggests a non-existent link between ER and CD in this group of healthcare professionals.

In conclusion, no correlation between ER and CD was determined (r=.004, with a significance level of .967), which leads to acceptance of the null hypothesis. This can be explained given that both variables address emotional aspects. The ER focuses on managing positive and negative emotions, in addition to emotional blocking in traumatic situations. However, CD is oriented to reduce negative or unpleasant emotions over time.

#### **METHODOLOGY**

The study was conducted with a sample of 135 health professionals including physicians of various specialties, registered nurses, and nursing technicians from the National Hospital of Lambayeque. The sample included both men and women, between 22 and 40 years, working in the Intensive Care, Side B Internal Medicine, and Emergency units. This group of individuals constitutes the basis for determining the research population, which meets a set of specific parameters. Therefore, the research population is defined as the exact number of participants required to achieve the stated objectives (Arias-Gómez et al., 2016).

To conduct the procedure, the initial stage was the selection of the tools, and then the data collection and processing of the information were performed. Also, descriptive statistics were employed to achieve the examination of the data which confirmed the acceptance of the null hypothesis.

ISSN: 2810-8728 (Online)

**1.9** JANUARY - MARCH 2024

Scientific Artícle **09 - 17** 

Furthermore, the Lomogonov-Smirnov non-parametric test was applied using the SPSS 26 software to determine both normality and Spearman's correlation coefficient, which determines the connection between variables and dimensions.

# **RESULTS**

Correlation between ER and CD in Healthcare Workers at the National Hospital of Lambayeque.

Table 1

		Regulación emocional
Spearman's Rank	Coping with Death	,004
Correlation Coefficient	Sig. (bilateral)	,967
	N	135

Note: The Sig. (two-tailed)= .967 > .05, indicates there was no significant correlation between the analyzed variables.

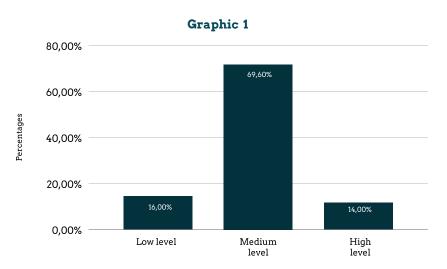
According to Table 1, no significant connection was indicated between ER and CD, which is attributed to the recorded correlation coefficient value (r= .004). In addition, a significance level of .967 was reported.

ER levels in healthcare workers at the National Hospital of Lambayeque

Table 2

		Frecuencia	%
Emotion Regulation	Low level	22	16.3
	Medium level	94	69.6
	High level	19	14.1
	Total	135	100.0

Note: The data was obtained from a non-probabilistic sample of 135 healthcare workers



According to Table 2 and Graphic 1, different levels of ER were registered in 100% (135) of healthcare workers at the National Hospital of Lambayeque: 14.07% (19) a high level, 69.63% (94) a moderate level, and 16.30% (22) a low level.

CD Levels in Healthcare Workers at the National Hospital of Lambayeque.

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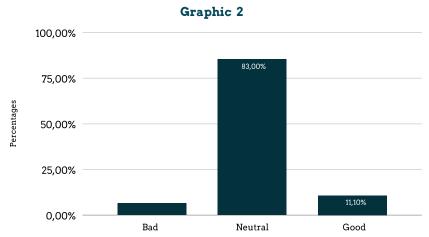
1.9

JANUARY - MARCH 2024 Scientific Artícle 09 - 17

Table 3

		Frecuencia	%
Coping with Death	Bad	8	5.9
	Neutral	112	83.0
	Good	15	11.1
	Total	135	100.0

Note: The data was obtained from a non-probabilistic sample of 135 healthcare workers



According to Table 3 and Graph 2, different levels of CD were registered in 100% (135) of healthcare workers at the National Hospital of Lambayeque: 5.9% (112) a low level (deficient), 83.0% (94) a medium level (neutral), and 11.1% (15) a high level (adequate).

Relational Level Between Cognitive Reappraisal Dimension and CD in Healthcare Workers at the National Hospital of Lambayeque

Table 4

		Evaluación cognitiva
Coeficiente de correlación Rho de Spearman	Afrontamiento de muerte	,029
	Sig. (Bilateral)	,739
	N	135

Note: Table 4 shows a Sig. (two-tailed)=.739 > .05, indicating no significant correlation between the variable and the analysis dimension.

According to Table 4, no significant connection was proved between the dimension of Cognitive Reappraisal levels and CD among healthcare workers, as shown by the correlation coefficient value (r=-.029). In addition, a significance level of .739 was reported.

Relational Level Between Suppression Dimension and CD in Healthcare Workers at The National Hospital of Lambayeque.

Table 5

		Supresión
Spearman's Rank correlation coefficient	Coping with Death	,027
	Sig. (two-tailed)	,757
	N	135

Note: The table details a Sig. (two-tailed)= .757 > .05, indicating no significant correlation between the variable and the analysis dimension.



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According to Table 5, no relational connection was found between the Suppression dimension and CD among healthcare workers due to the correlation coefficient value (r= -.027). In addition, a significance level of .757 was reported.

#### **DISCUSSION**

The research aimed to determine how ER corresponds to CD among healthcare workers at the National Hospital of Lambayeque in 2022. The results indicated that there was no significant relation between these variables, with a correlation coefficient of r= .004 and a significance level of .967, according to a sample of 135 health professionals, such as physicians, nurses, and nurse technicians.

Supporting the null hypothesis. In order to provide a clearer understanding of ER, Gross (2014) suggests that this variable includes various processes. Therefore, each person adjusts one or more components, which directly influences the emotions we feel, display, and express.

In contrast, the second variable is CD, also known as "coping" which was conceptualized by Lazarus et al. (1986). They described it as the effort in intellectual, emotional, and behavioral areas aimed at addressing internal and external demands that challenge an individual. According to these authors, coping is a change mechanism aimed at adaptation, where the individual continuously interacts with their environment (Sanchís Fernández, 2017).

In compliance with the theories of the authors, it can be inferred that ER and CD show similarities in managing and controlling negative emotions in difficult situations, such as dealing with the death of patients in various critical areas. Healthcare workers, including physicians, nurses, and nurse technicians, display adaptability, acceptance, and/or distancing as response methods. This is due to their constant exposure to critically ill and deceased individuals, which drives them to regulate and cope with their emotions. Moreover, Pascual and Conejero (2019) suggest that both "coping" and ER are related to the concept of emotions.

In contrast, the term "coping" refers to the actions that a person takes to avoid negative emotions, while "ER" is a wide concept that includes both negative and positive emotions. Furthermore, these authors highlight that ER, or coping experienced by a person, could change depending on the context, the objectives, and especially, the individual itself.

On the other hand, when we focus on the differences between both terms, it is important to consider what Gross (2014) states. The distinction between ER and CD can depend on the time involved. For example, Coping with a loved one's death can implicate the experience of unpleasant emotions for a long period. This difference highlights how the period and nature of emotions affect how ER and CD are handled.

Regarding the first specific objective, which was determining the degree of Emotional Regulation (ER) among healthcare workers at the National Hospital of Lambayeque in 2022, the following results were obtained from 100% (135) of the individuals evaluated: 14.07% (19) are in a higher degree, which indicates that this percentage adequately manages their emotions in critical situations related to death. On the other hand, 69.63% (94) showed a medium level, evidencing that most healthcare workers have an effective process to regulate their emotions. Lastly, 16.30% (22) were at a low level in which negative emotions were prevalent. Such findings are supported by Rubbini's research (2016) regarding anxiety and ER in members of the psychiatric nursing team, who found a moderate positive correlation between the dimensions of Cognitive Reappraisal and Suppression in nurse technicians, as well as a moderate correlation in registered nurses. This highlights the importance of ER, which according to Endler and Parker, is defined as the cognitive and behavioral processes employed to solve the differences between the demands in a situation and the capabilities of a person (Pascual & Conejero, 2019).

Likewise, Hervás (2011) states three forms in which the ER manifests itself in the clinical context due to affective dysregulation, which is the opposite of ER, where the individual shows a deficient performance in their methods of regulation when facing negative feelings (Hervás & Vázquez, 2006). These three forms include dysregulation due to the lack of activation, in which the individual does not use their methods of management in situations of distress and sadness, as in the case of depression.

ISSN: 2810-8728 (Online)

1.9

JANUARY - MARCH 2024

Scientific Artícle

09 - 17

The second type is dysregulation due to lack of efficacy, where the activation of the regulation methods employed is not effective as a result of an inadequate emotional interpretation of the experienced situation. Finally, dysregulation is due to the application of dysfunctional strategies, when inappropriate ER strategies activate (such as suppression, avoidance, and rejection), which causes more intense and uncontrolled reactions and responses (Hervás and Moral, 2017).

Regarding the second specific objective, it was proposed to determine the level of CD in healthcare workers at the National Hospital of Lambayeque in 2022. The results showed that the levels of CD of 100% (135) of healthcare workers at the National Hospital of Lambayeque are distributed as follows: 5.9% (8) low level (deficient), 83.0% (112) medium level (neutral), and lastly, 11.1% (15) high level (adequate). These results are supported by Zambrano Vargas's (2019) research on CD and Quality of Life in the Oncology Service Nursing Staff, which included a sample of 42 registered nurses and nurse technicians. According to that study, it was found that 73.8% of the nursing staff presented a neutral level of CD, suggesting that this sample should improve their ability to manage the bereavement experienced by the people under their care. In addition, 23.9% showed good coping with the negative stimulus, while 2.3% did not adequately cope with death.

Hence, the importance of the CD variable, as explained by Lazarus et al. (1986) in their theoretical conception of the coping process, is underlined. According to these authors, when a subject faces a situation, they make different self-assessments, distinguishing between primary and secondary appraisals. Primary appraisal refers to the identification of whether the event is positive or negative, as well as its current and future repercussions. On the other hand, the secondary appraisal analyzes the individual's abilities to cope with the situation. To further exemplify this, the authors use the fear of death as a stress trigger, explaining that the individual performs the above mentioned appraisals. First, by evaluating the positive and negative aspects and their consequences; and second, by evaluating their ability to cope with the situation.

For the third specific objective, it was aimed to examine the connection between the Cognitive Reappraisal dimension and CD in healthcare workers at the National Hospital of Lambayeque in 2022.

It was found that there is no significant relation between the ER dimension and CD, with a correlation coefficient of r= -.029 and a significance level of .739. To obtain a better appreciation of the Cognitive Reappraisal dimension, Gross (1998) describes that this dimension involves the reinterpretation of an emotion to change negative thoughts related to the event into more adaptive ones, to achieve a more positive emotional response. Furthermore, cognitive reappraisal focuses on recognizing and questioning maladaptive thoughts, replacing them with more constructive thoughts to reduce their impact (Arévalo et al., 2022).

Cognitive reappraisal is one of the strategies that constitute ER. This strategy implies that healthcare workers perceive situations that previously caused them discomfort in a different and more adaptive way. For this reason, no significant relation with CD is observed, as it focuses on reducing or eliminating the emotional unease introduced by a delicate circumstance.

In the case of the fourth and final specific objective, it was proposed to determine the degree of connection between the Suppression dimension and CD in healthcare workers at the National Hospital of Lambayeque in 2022. It was found that there is no important link between the dimension of Suppression and CD, with a correlation coefficient of r= -.027 and a significance level of .757.

For a more detailed understanding of this second dimension of ER, it is useful to consider the definition of Gross (1998), who describes suppression, also known as expressive inhibition, as a method of affective response regulation aimed at avoiding behavioral expression. Moreover, it is pointed out that this guideline, built on the affective response, implies that the subject modifies the behavioral component of their reaction to a situation.

The emotional suppression strategy can be efficient and effective in reducing the expression of negative emotional states (Landolo et al., 2017).

On the other hand, the research had some restrictions since the approach was two-dimensional, being limited to the study of only two variables. In addition, the population selection was done by convenience, choosing high-risk hospital sections for patients in serious conditions, which resulted in a non-probabilistic sample. Also, the application of the instruments was conducted virtually, which may have generated various difficulties in the responses, such as distractions or misunderstandings of some questions on the part of healthcare workers, given that there was no direct monitoring to solve their possible doubts.

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ISSN: 2810-8728 (Online)

1.9

JANUARY - MARCH 2024

Scientific Artícle

09 - 17



#### **CONCLUSIONS**

Regarding our main objective, it is concluded that there is no significant relation between ER and CD (r=.004, with a significance level of .967), and the null hypothesis is accepted.

Concerning ER, it is concluded that healthcare workers present a medium level of 69.63%, which indicates that they are in the process of better controlling and regulating their emotions in critical situations with patients who are in critical conditions.

Regarding CD, it is concluded that healthcare workers present a medium level (neutral) of 83,0%, which indicates they have better coping skills in critical situations concerning patients who are in agonal state or who just passed away.

As for the correlation levels between Cognitive Reappraisal and CD among healthcare workers, it is concluded that there is no significant relation due to the correlation coefficient result (r= -.029, and the significance level of .739). Thus. cognitive reappraisal refers the to processing of emotions previously experimented with in traumatic situations, which leads to its analysis for a better emotional and behavioral expression.

On the other hand, coping with death constitutes a group of thoughts and behaviors that allow individuals experiencing the unpleasant situation of losing a loved one, to have control over the difficult situation and hence, to be able to manage their own cognitive and behavioral processes, which tend to be variable and changing in the difficult situation.

Finally, concerning the correlation between emotional suppression and CD among healthcare workers, it is concluded there is no significant relation. This is due to the correlation coefficient result (r = -.027) and the significance level of .757.

Therefore, emotional suppression, focused on negative emotions, involves avoiding, reducing, or eliminating an emotion. Similarly, the CD variable also focuses on negative emotions, where basic theory suggests that experiencing unpleasant situations allows adaptability to the environment and context.

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1.9 JANUARY - MARCH 2024

Scientific Artícle

09 - 17

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Katherine Rossmery Hernández Enríquez ORCID: 0009-0002-2692-5637 Milagros Carbonel Torres ORCID: 0009-0004-0523-5471 WORKERS



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