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# The effect of learned helplessness on the psychological health of healthcare workers

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## Abstract

**Introduction:** The study of the relationship between learned helplessness and psychological health in the workplace provides a good understanding of how psychological health functions and identifies the factors of well-being and psychological distress among caregiving staff.

**Methods:** To examine the impact of learned helplessness on the determinants of psychological health among healthcare workers, we surveyed a sample of 141 Moroccan healthcare workers (62.41% female;  $M_{age}=41.4$ ).

**Results:** The results indicated that psychological well-being at work is negatively correlated with feelings of learned helplessness. In contrast, psychological distress reports a significant positive correlation with feelings of helplessness among healthcare workers (-.28 and .35, respectively).

**Discussion:** The study of the link between feelings of learned helplessness and psychological health at work provides a good understanding of the problem of psychological health at work among caregiving staff and identifies its determinants. This study's results underline that the feelings of helplessness that healthcare workers learn during their professional practice influence their psychological health and help to (partially) explain their psychological well-being and distress. The statistical analysis results reveal that learned helplessness reports a significant correlation coefficient with psychological well-being at work and its factors (serenity, social commitment, and social harmony).

**Take-home message:** Our study underscores the critical link between learned helplessness and psychological health among healthcare professionals. It reveals that feelings of helplessness in caregivers not only lead to psychological distress but also predict it. Conversely, a sense of competence and strength fosters psychological well-being, positively impacting their psychological health. This highlights the importance of addressing these emotional states in the healthcare sector.

**Keywords:** health care workers; learned helplessness; psychological distress; psychological health; psychological well-being.

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## INTRODUCTION

The feelings and expectations of uncontrollability generated by experiences of failure and lack of control over the situations and events experienced (tasks, progress, etc.) influence individuals' performance and lead to helplessness and incompetence [1-3]. Feelings of lack of control generate motivational difficulties and lead to feelings of uncontrollability or even helplessness in the face of subsequent situations [4]. On the other hand, feelings of control of the situation (tasks, work process, etc.) contribute to developing feelings of self-efficacy and persistence, which in turn promote learning new competencies [4].

Exposure to uncontrollable and inescapable situations leads to the learning of feelings of helplessness and, consequently, contributes to the emergence of depressive symptoms [4-8]. Behavioral controllability has both positive and negative effects on the psychological health of doctors and nurses [9]. Previous studies also indicated that the frequency of failure and the formation of expectations of uncontrollability are at the root of learning feelings of helplessness, which subsequently lead to symptoms of distress, depression, and anxiety [3,4,6,10,11].

In this sense, studying the relationship between learned helplessness and psychological health in the workplace provides a good understanding of how psychological health functions. It identifies

the factors of well-being and psychological distress among caregiving staff. Doctors and nurses work in more demanding conditions [12-14]. However, exercising under more restrictive conditions could foster feelings of helplessness, which influence psychological health among caregiving staff. This study will therefore examine a question that has not been sufficiently investigated; do feelings of learned helplessness, acquired during uncontrollable work experiences, influence the well-being and psychological distress of caregiving staff practicing at the Ibno Baja Hospital Center?

To meet the objectives of this study, we will first illustrate the concept of learned helplessness and its relationship to psychological health in terms of psychological well-being and distress. We will then discuss the methodology and tools used to investigate this issue. We will then illustrate the results of the descriptive and inferential statistical analyses before concluding with a general discussion.

### ***Learned helplessness and psychological health***

The concept of learned helplessness has its origins in the work of Seligman and many other researchers, who focused on the study of feelings of helplessness, whether in animal or human subjects; learned helplessness, therefore, relates to feelings of resignation and despair linked to the lack of ability and behavioral strategies needed to control a situation or avoid an event [6,8,15]. The experiment conducted by Seligman and Maier (1967) showed that dogs that had been subjected to inescapable (uncontrollable) electric shocks had learned to be resigned and no longer attempted to avoid electric shocks, even when they were exposed subsequently to escapable electric shocks [8,15]. Learned helplessness was observed in dogs that did not acquire the skill to avoid shocks, unlike dogs that were first exposed to controllable (escapable) electric shocks, which learned to initiate the appropriate reactions to avoid and control shocks [8].

Seligman and Maier's (1967) experiment demonstrated that subjects who were initially confronted with an uncontrollable situation (i.e., lack of dependence between outcome and response) manifested feelings of helplessness and hopelessness characterized by emotional exhaustion and depression, cognitive incapacity, even passivity and loss of motivation [6,8]. However, dogs that initially experienced a controllable (escapable) situation showed efficient, dynamic, and more persistent behavioral responses, even when confronted with an uncontrollable situation. As for this idea, the external locus of control exerts a similar effect to uncontrollability or inescapability and teaches feelings of helplessness [2,5,8,16,17]. Thus, studies conducted within the framework of the learned helplessness model have confirmed the importance of the results retained by Seligman and Maier (1967).

Simultaneously, the results of Calvete et al. (2014) suggest that the scheme of lack of autonomy, involving beliefs such as failure and helplessness, is statistically correlated with social anxiety symptoms. This finding is also consistent with the beliefs held by anxious individuals that their social behavior is awkward and that others are more competent and capable than they are [10]. These studies have revealed the importance of the relationship of inescapability to the formation of feelings of learned helplessness and even to the manifestation of depressive symptoms and the attribution of event control [4,6-8,15].

However, numerous studies conducted within the learned helplessness/learned resignation theory framework confirm that the principle of inevitability cannot explain the phenomenon of learned helplessness. Moreover, several distinct factors are involved in the formation of this phenomenon [3,18], especially uncontrollability and unpredictability (Overmier et al.,1983), as well as the explanations and attributions provided by the subjects [1,3,4]. These orientations contributed to the emergence of a new formulation of helplessness theory: "Objective non-contingency," i.e., objective non-contingency leads to the perception of present and past non-contingency, then the attribution of present or past non-contingency, which subsequently contributes to the emergence of expectations of non-contingency, and finally the appearance of symptoms of helplessness [3]. The results of the study by Abramson et al. (1978) explain that individuals who internalize explanations for adverse events with a certain stability and globality - and consider positive events as external, unstable, and dependent on specific causes - are more likely to manifest symptoms of prolonged

helplessness, in contrast to those who internalize explanations for positive events and externalize adverse events [1,3,4].

Admittedly, the old model of learned helplessness theory has been the subject of several criticisms, especially those stating that the researchers of this theory tried to reproduce the results of studies carried out on animal subjects in the human context [3]. The model does not distinguish between transitory and chronic learned helplessness [3]. It did not mention the relationship between the concept of learned helplessness and the externalization of control [3]. Another criticism of the old model of learned helplessness is that it fails to distinguish between personal helplessness (i.e., when uncontrollability concerns only some individuals) and universal helplessness (i.e., when uncontrollability concerns all individuals), as well as between general and specific learned helplessness [3,4]. Thus, the limitations of the old model of learned helplessness led Abramson et al. (1978) to propose a reformulation of this model, stipulating that the absence of contingency (i.e., independence) between response and outcome leads individuals to attribute their learned helplessness to causes that could be stable or unstable, specific or global, internal or external. Consequently, the cause of attribution influences both the expectation of future helplessness and the individual's self-esteem [3].

In the same vein, the findings of Gernigon et al. (2000) support that learned helplessness is correlated with uncontrollable experiences and internalization of the causes of failure (taking responsibility in causal attribution of failure) since the latter is associated with reduced persistence and motivation; performance and expectations which fails to control, generate motivational difficulties and give rise to feelings of helplessness. However, maintaining control over situations (tasks, etc.) contributes positively to self-efficacy, persistence, and expectations of control over similar situations, promoting learned competence [4]. However, Teodorescu and Erev's (2014) study among a sample of 120 students (technicians) showed that there was no causal link between learned helplessness and perceived controllability (learned-helplessness patterns emerged only when the frequency of rewards from exploration was moderate) [11]. This finding is explained by the absence of a significant difference between the two study groups when faced with a situation characterized by the lack of rewards. In his view, (financial) reward has a decisive effect on learning helplessness patterns and is correlated with perceived control. Similarly, perceived control is associated with performance, for which the frequency of rewards is the leading cause [11].

Despite the differences highlighted between the old and the new conception of the learned helplessness model, it seems that both agree on a fundamental rule indicating that the emergence of learned helplessness symptoms depends on the lack of contingency between the outcome and the response the subject manifests to achieve. On the other hand, the lack of (objective) contingency leads to helplessness symptoms only in the presence of expectations of non-contingency between the desired outcome and the likely response [3].

In this regard, the concept of learned helplessness is explained by feelings of resignation (permanent or temporary/general or specific) learned because of (successive) uncontrollable experiences characterized by failure and the absence of contingency between behavior (response) and result (outcome). Subjects with learned helplessness show no motivation to confront an event or escape an unpleasant situation, even in controllable situations; they have fatal beliefs and do not seek to escape an unpleasant event or achieve a pleasant outcome (e.g., whatever I do, I won't succeed; there is no solution) with a tendency to internalize the causes of failure (e.g., it's my fault, etc.) and low self-efficacy. Consequently, the manifestation of depressive symptoms is associated with the experience of uncontrollable traumatic events, the presence of low self-efficacy, and a tendency to internalize the causes of failure.

#### ***Learned helplessness and psychological health***

Research conducted within the framework of the learned helplessness theory affirms that subjects with a psychological state characterized by feelings of helplessness and hopelessness manifest symptoms of emotional exhaustion and depression, cognitive incapacity, and even passivity and demotivation [8,6]. The manifestation of stress and depression symptoms depends on

expectations of uncontrollability, explained by the independence between response and outcome. In other words, experiences characterized by failure of control - stemming from the absence of contingency between result (situation) and response (outcome)- generate depressive symptoms [3,4,6,8,11,16].

The manifestation of depressive symptoms is mainly associated with motivational, cognitive, and affective difficulties [6]. Uncontrollability is not a sole and necessary condition for the generation of depressive affects; depressive affects depend both on the perception of uncontrollability, self-esteem, and attribution factors [3,4,16]. This reformulation constitutes a stress diathesis, as negative explanations are seen as factors predisposing the individual to be helpless in the face of negative events [1]. Thus, the explanation or attribution of learned helplessness functions as both a symptom of depression and a predictor of depression [1]. Research carried out within the framework of learned helplessness theory has enabled us to understand several phenomena linked to depression, trauma, persistence, psychological health, and learning, as well as providing a cornerstone for designing the most appropriate therapeutic strategies [3,19].

### ***Helplessness model of depression***

Studies conducted within the framework of learned helplessness theory have affirmed that subjects who have learned feelings of helplessness as a result of (successive) uncontrollable experiences have presented symptoms of depression and anxiety. This finding led Miller and Seligman (1975) to develop the helplessness model of depression. This model states that subjects with depressive symptoms experience performance and learning difficulties (in terms of rapidity, failure, etc.) similar to those seen in subjects who have undergone inescapable experiences/situations and learned helplessness; i.e., the performance of depressed subjects is much poorer than that of non-depressed subjects and is similar to that of helpless subjects. The model in question also states that depressed subjects and subjects who have learned feelings of helplessness display higher levels of depression, anxiety, and hostility than non-depressed subjects or even those who have previously been exposed to a controllable situation and learned to be powerful and competent. This association between the depression variable and learned helplessness is explained both by the sensitivity and vulnerability of depressed subjects to learning feelings of helplessness and by the fact that feelings of helplessness increase and generate symptoms of depression, anxiety, etc. [6].

Miller and Seligman (1975) illustrate that depression and learned helplessness share a similar effect on subjects' performance and psychological state in terms of depression, anxiety, and hostility. Later, Abramson (1978) based on the body of criticism directed at this model, proposed his conception (reformulation) of the helplessness-depression model, incorporating four fundamental properties: 1) feelings of uncontrollability are insufficient to generate depression symptoms, since in life many uncontrollable outcomes do not affect us, except in the case where the estimated probability of controlling the circumstances and achieving the desired result (outcome) is lower, or the case where the probability of the occurrence of an aversive outcome is higher; 2) the presence of low self-esteem as a symptom of the depression syndrome; 3) the tendency to attribute the causes of failure (i. e., depressed people tend to attribute their failure to internal causes); 4) variation in the generality of helplessness (e.g., permanent or temporary, general or specific) and level (e.g., mild, moderate or severe) of depression [3].

In the context of this study, the concept of learned helplessness is understood as a feeling of resignation (permanent or temporary/general or specific) learned as a result of (successive) experiences of uncontrollable work situations, characterized by failure and the absence of contingency between behavior (response) and result (outcome). In contrast to subjects who display strong motivation and competence to control their work, subjects who have learned feelings of helplessness lack the competence to control the circumstances and progress of work; instead, they have integrated dysfunctional beliefs characterized by the manifestation of feelings of helplessness and incapacity, whether permanent or temporary, general or specific.

### ***Psychological health at work***

The concept of psychological health at work (PHW) is the subject of numerous studies that aim to explain and predict problems affecting the psychological health of individuals and the functioning of the work organization, more specifically, stress, distress, burnout or exhaustion, well-being, anxiety and depression that represent the topics of preoccupation in these studies [9,13,20-23]. Gilbert (2009) has indicated that the PHW is defined as an individual's ability to satisfy basic psychological needs in a perspective of well-being and adjustment at work, thanks to personal and organizational resources. However, this definition only covers the positive aspect of psychological health (i.e., well-being) and marginalizes the negative aspect, which represents psychological distress at work [21].

In this study, PHW is apprehended as a construct with a two-dimensional structure; one dimension of psychological well-being reflects the positive aspect of PHW, and another of psychological distress at work refers to the negative aspect of PHW [24-26]. Psychological well-being involves serenity, commitment to work, and social harmony [26]. However, psychological distress at work is composed of irritability/aggressiveness, anxiety/depression, as well as disengagement at work [9,26]. This study aims to examine the association between learned helplessness and psychological health. To achieve this aim, we hypothesized that the psychological health of doctors and nurses working at Ibn Baja Hospital Center (IBHC) is correlated with the feelings of helplessness they have learned throughout their professional practice. In other words, helplessness learned through uncontrollable work experiences (i.e., characterized by failure of control and lack of contingency between outcome and response) affects the psychological health of care workers and has a direct impact on their state of psychological distress. Whereas competence learning (e.g., feelings of control, self-efficacy, persistence, etc.) leads to symptoms of psychological well-being among caregiving staff practicing at IBHC.

## **METHODS**

### ***Study design***

This study employed a cross-sectional survey design to examine the impact of learned helplessness on the determinants of psychological health among healthcare workers in Morocco.

### ***Study participants and sampling***

In the present study, we proceeded with a census sampling method based on selecting all nurses and doctors working at the hospital (exhaustive sampling). All individuals who agreed to participate in the study were included.

The study sample consisted of 141 participants, including 41 doctors and 100 nurses from various IBHC departments (a hospital in Taza, Morocco). 88 of the participants were women, and 53 were men. The sample was also characterized by an average age of 41.4 years and an average seniority of 14.58 years.

### ***Study instruments and procedure***

To investigate the relationship between psychological health and feelings of learned helplessness, we used a device comprising the psychological health measurement scale [25,26] and a scale designed to measure feelings of learned helplessness.

The measurement scale proposed for investigating learned helplessness comprises three (3) items (1. I find it difficult to remedy the difficulties associated with my job; 2. I feel helpless in the face of constraining professional situations; 3. I am afraid of being attacked by an attendant/patient) measuring the feelings of competence or helplessness of healthcare workers concerning their work. Participants are asked to rate their feelings of helplessness /competence on a 5-point scale, ranging from strongly disagree to strongly agree. The tool reports a Cronbach's Alpha reliability of  $\alpha = .64$ .

The construct of psychological health at work comprises two distinct dimensions, a positive dimension measured by the scale for measuring psychological well-being at work and a negative dimension measured by the scale for measuring psychological distress at work [25]. The Measuring Manifestations of Psychological Well-being at Work Scale comprises 22 items measuring three dimensions of psychological well-being at work: serenity, commitment to work and social harmony [26]. On the other hand, the Measurement of Manifestations of Psychological Distress at Work scale

(EMMDP) comprises 23 items measuring the determinants of psychological distress at work: irritability/aggression, anxiety/depression, and disengagement at work. The response scales are ordered according to a 5-point response interval ranging from never to almost always [26].

**Data analysis**

The data analysis used SPSS version 21 (IBM, Armonk, NY, USA). Variables are expressed as frequencies and percentages. Correlation and regression analysis were employed to examine the relationships and predictive patterns within the collected dataset. Correlation analysis was utilized to assess the strength and direction of linear associations between variables, providing insights into the degree of interdependence among key variables. Additionally, regression analysis was employed to model and understand the predictive relationships between the independent and dependent variables.

**Ethical aspects**

The research received approval from the Institutional Ethics Review Board within the Department of Psychology at the Faculty of Letters and Human Sciences in Rabat, Morocco. Before data collection, the researchers adhered to ethical principles, which involved authorization from the administration for the study, providing a clear explanation of the study's objectives to participating students, safeguarding participant anonymity, obtaining their consent, and ensuring the confidential handling of collected data.

**RESULTS**

The Pearson correlation coefficient analysis results, shown in Table 1, highlighted that psychological well-being at work is negatively correlated with the learned helplessness variable, with a correlation coefficient of  $-.28$ , significant at  $p = .001$ .

**Table 1.** Matrix of correlations between learned helplessness, psychological well-being, and psychological distress at work.

<b>Variable</b>	<b>Learned helplessness</b>
Well-being global	$-.281^{**}$
Serenity	$-.279^{**}$
Social Commitment	$-.309^{**}$
Social Harmony	$-.258^{**}$
Psychological distress global	$.355^{**}$
Irritability/aggressivity	$.323^{**}$
Anxiety/depression	$.322^{**}$
Work Disengagement	$.333^{**}$

*Note:*  $^{**}$ . Correlation is significant at the 0.01 level.

Analysis of the correlation matrix affirms that learned helplessness is significantly correlated with factors of psychological well-being at work: a negative correlation coefficient of  $-.27$  with serenity (significant at  $p = .001$ ); a negative correlation coefficient of  $-.30$  with social commitment (significant at  $p < .001$ ), as well as a negative correlation coefficient of  $-.25$  with the social harmony factor (significant at  $p = .002$ ) (see Table 1). On the other hand, examining the correlation between feelings of learned helplessness and psychological distress among healthcare workers indicates that psychological distress at work positively correlates with the learned helplessness variable  $.35$ . This correlation coefficient is significant at  $p < .001$  (see Table 1). Furthermore, the results of the previous correlation matrix indicate that learned helplessness is significantly correlated with the various factors of psychological distress at work: a correlation coefficient of  $.32$  with irritability/aggression (significant at  $p < .001$ ); a coefficient of  $.32$  with anxiety/depression (significant at  $p < .001$ ); as well as a coefficient of  $.33$  with disengagement at work (significant at  $p < .001$ ).

A comparison between the professional categories of doctors (doctors and chief doctors) and nurses (nurses and chief nurses) reveals certain differences in the relationship between their psychological health and feelings of helplessness.

**Table 2.** Matrix of correlations between feelings of learned helplessness and dimensions of psychological health among nurses and doctors.

Profession	Variable	Helplessness
Nurses	Well-being	-.213*
	Distress	.153
Doctors	Well-being	-.298
	Distress	.584**

Table 3 shows a significant correlation of  $-.21^*$  ( $p = .035$ ) between well-being and feelings of learned helplessness among nurses. On the other hand, feelings of learned helplessness showed only a non-significant correlation of  $.15$  with psychological distress among nurses ( $p = .134$ ) (see Table 2). However, the relationship between PHW and feelings of helplessness in doctors differs from that in nurses (see Table 2).

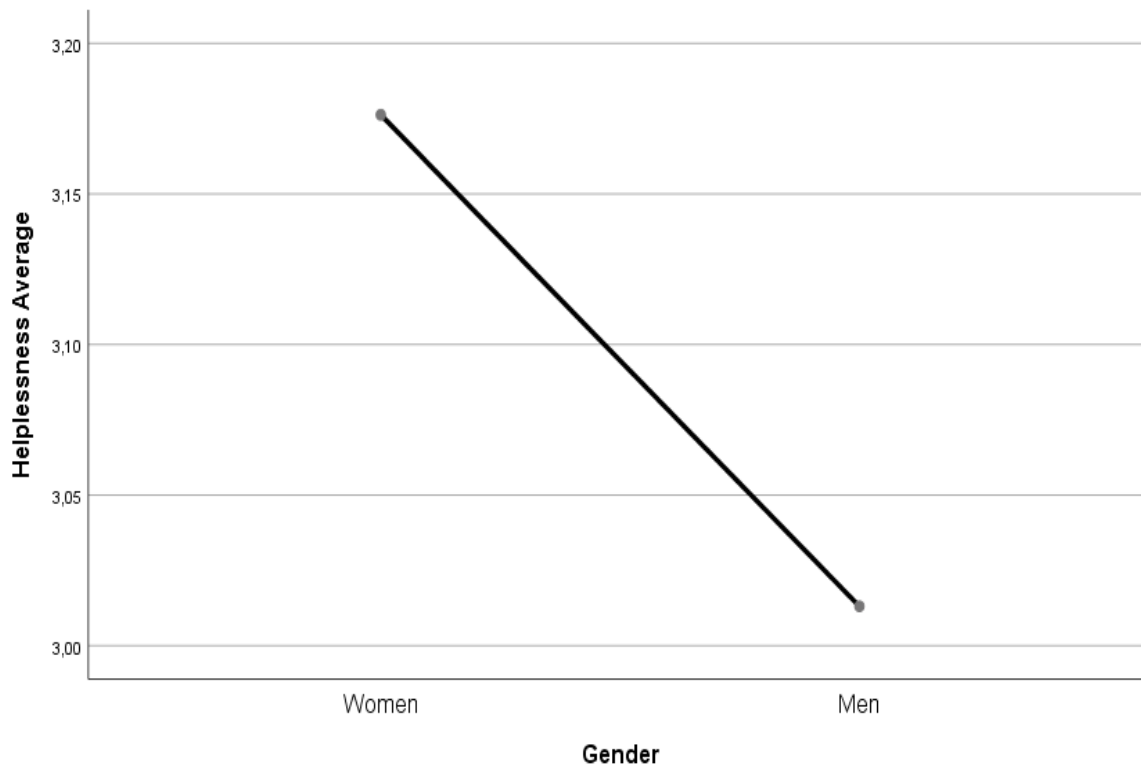
The results shown in the table above indicate the presence of a non-significant correlation of  $-.29$  ( $p = .062$ ) between psychological well-being and feelings of helplessness, as well as a significant correlation of  $.58$  ( $p = .000$ ) between psychological distress and feelings of helplessness among doctors. Given that the small size of the doctor's category could bias the significance of this comparison with the professional category of nurses. Before proceeding with the regression analyses, it seems pertinent to indicate the effect of gender (subject variable) on the two dimensions of psychological health Table 11, Figures 7, 8, and 9). The comparison of means report reveals the presence of certain inequalities between the mean values of psychological well-being and distress for men compared to women. Women report a mean of  $\mu = 1.79$  ( $\sigma = .65$ ) on the psychological distress dimension and a mean of  $\mu = 3.75$  ( $\sigma = .63$ ) on the psychological well-being dimension. Men, on the other hand, report an average psychological distress score of  $\mu = 1.63$  ( $\sigma = .61$ ) and an average psychological well-being score of  $\mu = 3.88$  ( $\sigma = .74$ ) (see Table 3).

**Table 3.** Comparison of psychological health dimensions according to gender.

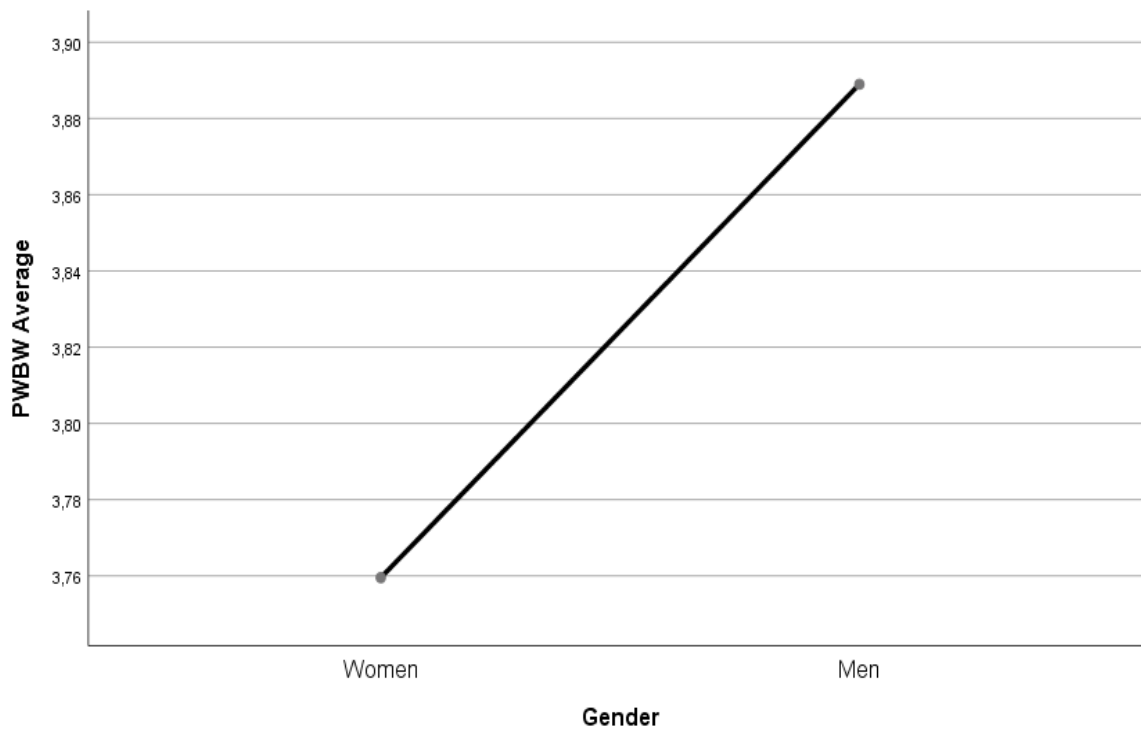
Gender	Statistic	PDW	PWBW
Women	Average	1.7972	3.7595
	N	86	87
	Standard deviation	.65278	.63498
Men	Average	1.6375	3.8890
	N	52	53
	Standard deviation	.61559	.74822
Total	Average	1.7370	3.8085
	N	138	140
	Standard deviation	.64147	.68034



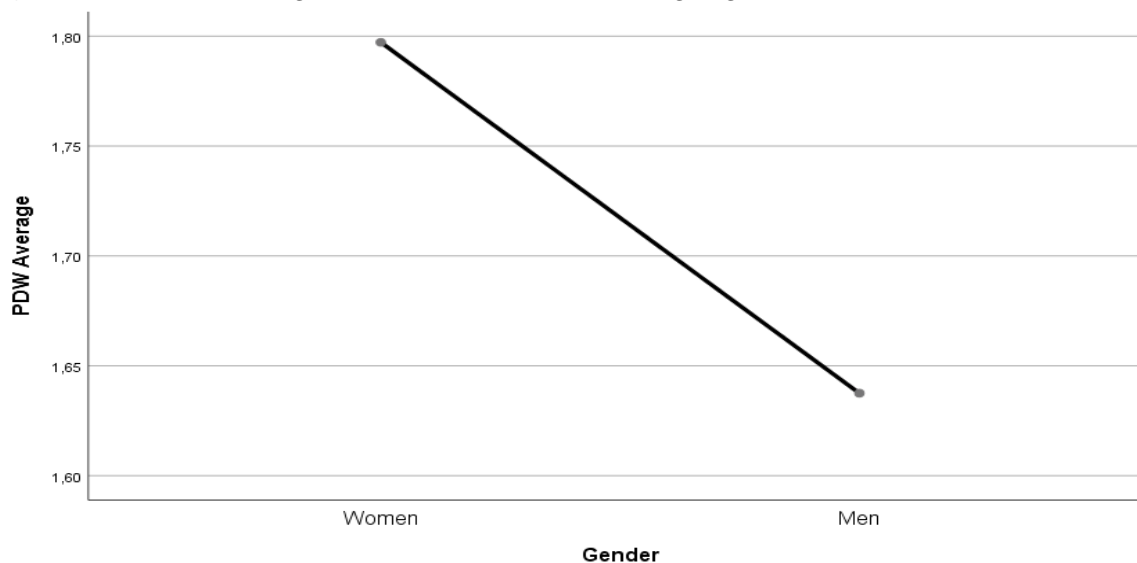
**Figure 1.** Curve illustrating the variation of helplessness according to gender.



**Figure 2.** Curve illustrating the variation of PWBW according to gender.



**Figure 3.** Curve illustrating the variation of PDW according to gender.



Regression analyses support feelings of helplessness as a rationale for psychological distress  $R^2 = .12$ ,  $F = 19.30$ ,  $t = [7.32, 4.39]$ , and an autocorrelation coefficient (DW) of 1.51. The standardized beta coefficient reveals a positive effect of  $b = .35$ , significant at  $p < .001$ . This suggests that feelings of helplessness explain 12% of psychological distress among healthcare workers (see Table 4). Indeed, the more helpless caregivers feel in their work, the more distressed they will be. Furthermore, the results underline that the presence of feelings of helplessness does not justify the presence of psychological well-being among healthcare workers:  $R^2 = .07$ ,  $F = 11.67$ ,  $t = [26.67, -3.41]$ , and an autocorrelation coefficient (DW) of 1.27. Furthermore, the standardized beta coefficient reveals that feelings of helplessness negatively affect psychological well-being  $b = -.28$  significant at  $p = .001$ . The lack or decline in psychological well-being at work is partially explained by feelings of helplessness (see Table 4). In sum, the results of the inferential statistical analysis affirm that learned helplessness is significantly correlated with dimensions of psychological health at work. The results show that learned helplessness is positively correlated with psychological distress, as well as negatively correlated with psychological well-being at work.

**Table 4.** Recap of the psychological distress and psychological well-being at work versus helplessness models and Beta regression coefficients for the dimension of PDW and PWBW.

Model	Model recap				Coefficients							
	R	R-Squared	Adj. R-squared	standard error of the estimate	Unstandardized coefficients		Standardized Coefficients	T	Sig.	Collinearity test		
					A	Standard Error				Beta	Tol	VIF
<b>Model 1: PDW versus helplessness</b>	.355 <sup>a</sup>	0.126	0.119	0.60312	(Constant)	1.11	0.152		7.32	0		
					Helplessness	0.201	0.046	0.355	4.394	0	1	1
<b>Model 2: PWBW versus helplessness</b>	.281 <sup>a</sup>	0.079	0.072	0.64207	(Constant)	4.267	0.16		26.678	0		
					Helplessness	-.165	0.048	-0.281	-3.417	0.001	1	1

Note: a. Predictors: (Constant), helplessness

## DISCUSSION

This study's results underline that the feelings of helplessness that healthcare workers learn during their professional practice influence their psychological health and help to (partially) explain their psychological well-being and distress. The statistical analysis results reveal that learned helplessness reports a significant correlation coefficient with psychological well-being at work and its factors (serenity, social commitment, and social harmony). In other words, feelings of learned helplessness negatively affect the psychological well-being of healthcare workers in the sense that the presence of feelings of helplessness is accompanied by a decline in psychological well-being at work and vice versa. Yet learned helplessness reported a significant (positive) correlation with psychological distress) and its factors (irritability/aggression, anxiety/depression, and disengagement at work). These results confirm the importance of the hypothesized correlation between psychological health at work (PWBW and PDW) and feelings of helplessness among caregiving staff. Feelings of learned helplessness generate symptoms of psychological distress and predict psychological distress in caregiving staff. On the other hand, feelings of competence and strength predict psychological well-being and promote the emergence of positive manifestations of psychological health in caregivers.

On the one hand, learned helplessness during uncontrollable (unfavorable) work experiences, characterized by control failure and lack of contingency between outcome and response, negatively affects the psychological well-being of doctors and nurses at Ibno Baja Hospital. On the other hand, learned helplessness is one of the explanatory variables of psychological distress at work since there is a significant correlation between psychological distress and feelings of learned helplessness among healthcare workers. These findings corroborate those of research conducted within the framework of the learned helplessness theory, as many studies have affirmed the association of symptoms of distress, depression, and anxiety with feelings of learned helplessness [3,4,6,7,10,11,16,27].

At the same time, the helplessness model of depression [6] illustrates the importance of the association between depression and learned helplessness. According to this model, the association between depression and helplessness could be explained either by the sensitivity and vulnerability of depressed subjects to learning feelings of helplessness or by the dependence of negative psychological health symptoms (depression, anxiety, etc.) on learning feelings of helplessness [6]. The model in question does not imply the presence of a causal link between feelings of helplessness and depression; other variables may intervene and influence the learning of feelings of helplessness and the manifestation of depressive symptoms, such as self-esteem, the attribution of the causes of failure [3], gender and the characteristics of the job, in terms of demands and skills.

Comparative statistics indicate that the professional category of nurses is more susceptible to feelings of helplessness and risks of psychological distress compared to head nurses and doctors. This is because doctors are better placed on the psychological well-being dimension and report lower helplessness and distress scores than nurses (see Figures n. 4, 5, and 6). These results corroborate those of Cadieux and Marchand (2015), affirming the link between psychological distress and the working conditions that characterize each profession (e.g., working hours). In addition, Machavoine's (2015) findings revealed that nurses and doctors involved in patient follow-up are more vulnerable to stress, exhaustion, and burnout. Thus, manifestations of psychological distress are more engendered in employees with low decision latitude and low social support, as well as in those more exposed to increased workload and role conflict [12,13,29].

The comparison between men and women affirms that women are more exposed to learning feelings of helplessness, as well as reporting higher psychological distress scores than men, who experience higher well-being scores (see Table 11, Figures 7, 8, and 9). The findings of this study are in line with those of Calvete and Hankin (2014), who highlighted women's vulnerability to the risk of depression and social anxiety [10]. Similarly, Seligman (2011) indicated that stress affects women more than men, explaining that men are more powerful and have enough coping strategies compared to women [31]. Thus, women and nurses are more exposed to psychological health risks, among them depression; since they are exposed to high psychological demand, they receive low social support as

well as have low decision-making latitude [32,33]. Learning helplessness also depends on the importance of reward [11], and nurse's salaries are lower than those of doctors, making them less persistent and more vulnerable to learning feelings of helplessness. The presence of a certain imbalance in the resource requirements equation (e.g., competence, decision-making latitude) will favor the experience of uncontrollable work situations and the learning of feelings of helplessness. These findings align with research on healthcare workers' well-being [34-37]. Consequently, the learning of feelings of helplessness gives rise to the emergence of symptoms of psychological distress.

#### **Study limitations**

While this study provides interesting findings regarding the relationship between learned helplessness and psychological health, it is essential to acknowledge the limitations that frame these conclusions. Firstly, the sample size of 141 participants and the inequality between the different occupational categories in the sample, while providing meaningful data, may limit the generalizability of the findings to broader populations of healthcare workers. Additionally, the study is based on self-reported measures, introducing the potential for response bias and social desirability effects. The reliance on a cross-sectional design implies that causal relationships cannot be established, and temporal variations in psychological health and learned helplessness cannot be adequately captured. Furthermore, using scales to measure complex constructs such as psychological health and learned helplessness may oversimplify the multifaceted nature of these phenomena. Cultural and contextual factors specific to the healthcare setting in Taza, Morocco, may also influence the generalizability of the results to other regions or healthcare institutions. Despite these limitations, the study contributes valuable insights, and future research with larger, diverse samples and longitudinal designs could further enhance our understanding of the dynamics between psychological health and learned helplessness in healthcare professionals.

#### **CONCLUSION**

This study reveals a significant association between learned helplessness and the psychological health of healthcare professionals. The analysis indicates that feelings of learned helplessness are negatively correlated with psychological well-being at work, as evidenced by the decline in serenity, social commitment, and social harmony among healthcare workers who report such feelings. Concurrently, a positive correlation is observed between learned helplessness and psychological distress, including irritability/aggression, anxiety/depression, and work disengagement [38,39]. These findings underscore the impact of learned helplessness on the psychological landscape of caregiving staff, influencing both positive and negative dimensions of psychological health [40,41]. Addressing these issues is crucial for developing targeted interventions to improve healthcare professionals' well-being [42-53]. It is important to note that this study is not without limitations, including sample size constraints and potential biases associated with self-report measures. Future research with larger and more diverse samples and longitudinal designs would contribute to a deeper understanding of these dynamics in the healthcare context.

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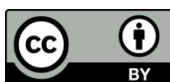
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