## **RESEARCH ARTICLE**



## The moderating role of age and seniority on nurses' emotional dissonance and perceived health

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#### Abstract

This study aims to investigate the weight of surface acting (a condition in which subjects must display an emotional state that does not correspond to their real feelings) in the relationship between the emotional load of nursing work and the perception of health, and to evaluate the moderating effect of age and length of service. A moderated mediation analysis was conducted on a sample of 359 Italian nurses. The results confirmed the mediation role of surface acting and showed that both age and seniority have moderating effects so that in conditions of high emotional load, older and more experienced nurses show higher levels of surface acting, and in conditions of high surface acting, younger and less experienced nurses show lower levels of perceived health. In conclusion, surface acting seems a stressor for younger nurses, not yet used to the weight of faking emotions, while the perceived emotional load seems a stressor for older and more experienced nurses. Each result highlights the importance of providing emotional regulation skills training and support to reduce the psychological impact of emotional demands on nurses.

#### KEYWORDS

age, emotional dissonance, general health, nursing, seniority, surface acting

#### Key points

- The perceived emotional load has a negative effect on Italian nurses' well-being both directly and indirectly through the effect of surface acting, namely, the need to display an emotional expression that does not correspond to true feelings.
- The weight of the emotional load increases with age and seniority, while the effect of surface acting on well-being is more detrimental for younger nurses with fewer years in the role.
- · Dealing with emotional work tasks and emotional regulation demands is associated with a decrease in perceived general health for Italian nurses.

#### 1 INTRODUCTION

The emotional impact of working in close contact with suffering is an aspect that is increasingly being considered in studies exploring the stressors of nursing work (Andela et al., 2016; Kim, 2020). The constant exposure to the need to maintain an emotional state consonant with the situation, but not experienced as natural, is called emotional dissonance (Hochschild, 1983; Rafaeli & Sutton, 1987). There

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are two main strategies to cope with it: surface acting and deep acting (Hochschild, 1983), and each is associated with potential risks to individuals' well-being (Zapf et al., 2021). In particular, the literature has widely demonstrated the detrimental role of surface acting on the well-being of healthcare workers (Karimi et al., 2014; Makkai, 2018; Van Dijk & Kirk-Brown, 2006). In recent years, emphasis has also been placed on the different ways in which nurses approach this complex profession at different stages of their lives and careers (Ryan et al., 2017). However, a lack of research on these variables has left unanswered the hypothesis that age and length of service may interact with the emotional stressors of nursing, and how. The research questions underlying this study attempt to fill this gap.

#### BACKGROUND 2

#### 2.1 Emotional labor in the health sector

In recent years, research has focused on the role of emotions in the workplace (Grandey, 2000; Humphrey et al., 2008; Kern et al., 2021; Sciotto & Pace, 2022). Since emotions are a central aspect of the health profession, the term emotional labor (Hochschild, 1983) has been used to indicate many aspects of healthcare work. Healthcare professionals are constantly charged with emotions of anger, rage, embarrassment, fear, and despair (Makkai, 2018). The day-to-day circumstances of healthcare work are fertile ground for the development of feelings of stress and overwhelm (Bria et al., 2012). Nurses manipulate the expression of emotions as part of their job role (Mastracci et al., 2012), and as a result, they may experience a state of emotional dissonance, which is the discrepancy between felt and displayed emotions (Hochschild, 1983; Rafaeli & Sutton, 1987). Emotional dissonance is a phenomenon that impacts healthcare workers from different perspectives, as it may threaten their psychological and mental health and may challenge and affect their motivations, as well as the quality of their work (Andela et al., 2016; Pace et al., 2022; Van Dijk & Kirk-Brown, 2006). In addition to coping with ordinary stressors (such as long working hours and excessive workload), nurses also have to constantly manage a significant emotional load, such as feelings of mourning, loss, and emotional distress (Aiken et al., 2001; Decker, 1997; Zapf et al., 2021). The nursing profession, due to its distinctive characteristics, is susceptible to emotional overload, as nurses are required to be attentive, maintain a neutral or empathetic tone, suppress feelings of fear or irritation when required (Andela et al., 2016), and manage emotionally charged relationships with colleagues, patients, and/or their families, which can increase the exposure to burnout risk (Maslach & Jackson, 1981; Powell et al., 2015) and deplete workers' mental and physical resources (Mazzetti et al., 2020). Nurses who experience a lack of emotional resources may consider themselves unable to provide patients with emotional support (Makkai, 2018). On the other hand, emotionally overloaded healthcare workers may develop negative and cynical attitudes toward patients (Underman & Hirshfield, 2016).

#### 2.2 The effects of emotional dissonance on nurses' well-being

To foster their feelings of caring and generally cope with the emotional demands of work, employees can manage their emotions and their expression through two different strategies: deep acting and surface acting (Hochschild, 1983). Workers perform surface acting when they mask their true emotions to match the emotions required by the organization (Hochschild, 1983). It can lead people to perceive a sense of inauthenticity, internally (Ashforth & Humphrey, 1993; Pugh et al., 2011; von Gilsa et al., 2014) and externally (Holman et al., 2008), threatening well-being through the increase of work strain. This occurs because employees are forced to change how they spontaneously think, feel, or behave by following certain emotional labor rules (Schmidt & Diestel, 2015; Zapf et al., 2021). In contrast, when performing deep acting, employees try to manage their emotions so that their feelings match the required emotions; in this case, the displayed emotions are authentic (Grandey, 2003; Zapf et al., 2021). Even if both deep and surface acting tend to be emotionally demanding (Debesay et al., 2014), these two strategies are associated with different outcomes (Zapf et al., 2021). Surface acting is associated with several negative consequences that affect the wellbeing of workers, such as a sense of inauthenticity, job strain, emotional exhaustion, burnout, and mental and physical distress (Cheng et al., 2013; Karimi et al., 2014; Kern et al., 2021; Schmidt & Diestel, 2015). In a recent study, it has been proven its mediating role in the relationship between some work-related stress variables and consequences such as increased fatigue at the end of the working day and decreased levels of perceived well-being, both among workers in close contact with the public (including health sector workers) and among workers with few interactions with the public (Sciotto & Pace, 2022). Surface acting is an energy-consuming strategy (Baumeister et al., 2007), as it requires health professionals to invest their resources in monitoring and regulating themselves along with continuous investment in mental efforts to modify their emotional expression (Schmidt & Diestel, 2015), and this may lead to emotional overload (Golfenshtein & Drach-Zahavy, 2015). Surface acting requires more self-control resources and energies than deep acting and therefore may deplete resources to a greater extent (Martínez-Iñigo et al., 2007; Totterdell & Holman, 2003; Zapf et al., 2021). In contrast, deep acting engages control resources during the first moment of emotion by deploying attention or reevaluating situations to induce the expected emotion (Grandey, 2000; Gross, 1998; Lee et al., 2016).

#### 2.3 The effects of age and seniority

According to the literature, those who employ deep acting have more working experience (seniority) (Golfenshtein & Drach-Zahavy, 2015) and a significantly improved quality of professional life (Chou et al., 2012; Golfenshtein & Drach-Zahavy, 2015), even though age has a positive effect on both surface and deep acting (Hur et al., 2014). In fact, age and seniority (id est, the years or length of service; in Italy the more years of service the more the worker is considered senior) may play a role in the perception of emotional labor. Ryan et al. (2017) found that the more years spent in the role or the older the employee, the more professionals struggle with consequences such as physical and cognitive decline with advancing age, and lack of recognition from other colleagues, although they have developed skills and knowledge through experience. In addition, new responsibilities such as personal health problems and caring for aging parents can arise during middle age. It was found that psychological well-being can be influenced by seniority in shift work (Vermaak et al., 2017). Seniority, age, or job satisfaction have a moderating effect on the relationship between sociodemographic variables (gender, marital status, and parenting) and burnout levels in nurses (Cañadas-De la Fuente et al., 2018). Furthermore, it seems that when junior doctors interact with patients using the strategy of surface acting, the emotional labor leads to a sense of emotional tension and thus to work-related burnout (Rogers et al., 2014). Younger and inexperienced workers are more likely to resort to surface acting (Erickson & Grove, 2008; Yeh et al., 2020) and have a higher tendency to experience negative emotions (Busuloc & Butucescu, 2020).

In conclusion, the literature suggests that when the job position increases in seniority, health professionals will experience emotional labor differently. This is due not only to the previously mentioned variables but also to employees' acquisition of more power and autonomy (Humphrey et al., 2008; Morris & Feldman, 1997), as well as a change in role-related expectations (Hesmondhalgh & Baker, 2011). Furthermore, it is reasonable to assume that employees with more years of experience have had access to higher hierarchical positions, which are connected to greater benefits, such as more time to rest and recover energy depleted by emotional loads (Baldwin & Daugherty, 2004). They may also feel less obliged to adhere to emotional rules implicitly imposed by the organization (Ma et al., 2015).

Based on these premises, the present study aims to verify if:

**Hypothesis 1.** Surface acting mediates the relationship between emotional load and general health.

**Hypothesis 2.** Seniority (i.e., the length of service) has a moderating effect on the relationship between nurses' emotional load, surface acting, and general health.

**Hypothesis 3.** Age has a moderating effect on the relationship between nurses' emotional load, surface acting, and general health.

### 3 | METHODS

#### 3.1 | Sampling

Data were collected between January 2022 and July 2022. Participants were contacted by email containing the informed consent documents and a link to the online questionnaire, in which the response to Nursing & Health Sciences \_WILEY

all items was mandatory. This prevented missing data. Facility managers and supervisors were contacted using contact information publicly available online and asked to forward the invitation to participate in the research to all their employees, who were asked to forward it to other colleagues using a snowball sampling procedure. The response rate was about 50%. The final sample is composed of 359 nurses. The participants were not asked for any additional information to guarantee their anonymity. The project has been approved by the Bioethics Committee of the University of Palermo (protocol n. 72/2022).

#### 3.2 | Measures

Emotional load was measured using the 5-item scale from the Italian version of the Questionnaire on the Experience and Evaluation of Work (QEEW; Pace et al., 2010; Van Veldhoven et al., 2015), assessed through a 4-point Likert scale ranging from 1 = "never" to 4 = "always". The scale measures the perception of the emotional load attributed to one's work. Higher scores indicate a higher level of perceived emotional overload. An example of an item is "My work demands a lot from me emotionally". Cronbach's alpha in this study was 0.71.

Surface acting was measured using the 3-item scale from the Italian version of the Emotional Labour Scale (Badolamenti et al., 2018; Brotheridge & Lee, 2003), assessed through a 4-point Likert scale ranging from 1 = "strongly disagree" to 4 = "strongly agree". This scale defines surface acting as the need to manipulate emotions experienced during working hours to adjust them to those required by the organization. An example of an item is "At work, I pretend to have emotions that I don't really have". Cronbach's alpha in this study was 0.70.

General health was measured through the Italian adaptation of the 12-item version of the General Health Questionnaire (GHQ-12; Goldberg, 1978; Piccinelli et al., 1993), composed of 6 items measuring positive feelings and 6 items measuring negative feelings on a 4-point Likert scale ranging from 1 = ``No/Much less than usual'' to 4 = ``Much more than usual''. The last 6 items were reversed so that a higher score indicates a positive level of perceived general health. Cronbach's alpha in this study was 0.87.

Permission for the use of the QEEW (Van Veldhoven et al., 2015) has been granted for research purposes to the University of Palermo by SKB, which is the copyright owner. Where not specified, the instruments used in this study are in the public domain.

## 3.3 | Data analysis

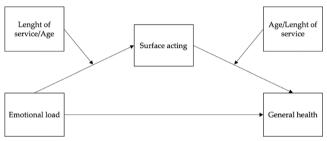
A moderated mediation model was tested using the PROCESS macro (version 3.5; Hayes, 2018) for SPSS (Model 21). The model has been tested twice, alternating moderators (Figure 1). To verify the significance of indirect effects, the bootstrap method with 5000 replications and 95% confidence intervals was used.

#### RESULTS 4

The sample is composed of 359 nurses employed in public (89.7%) and private (10.3%) health facilities (hospitals, private clinics, and nursing homes) throughout Italy. The mean age is 42 years old (SD = 11.95), in a range between 20 and 65 years old, and 73% are female. Overall, 10.6% of the sample has been working as a nurse for less than a year, 34.5% has been in the nursing profession for a period between 1 and 8 years, 8.9% for a period between 8 and 14 years, and the remaining 46% has been working as a nurse for more than 14 years.

The correlations between the study variables are reported in Table 1.

A mediation analysis was carried out to verify the mediating role of surface acting in the relationship between emotional load and general health, using gender, age, and length of service as control variables. As shown in Table 2, emotional load is positively associated



The hypothesized model.

trol variable. As expected, results show a significant and positive effect of emotional load on surface acting. Having to deal with emotionally stressful work situations and tasks favors the implementation of the surface acting strategy, since it is required to show only certain emotions while suppressing others. Both emotional load and surface acting have a negative effect on nurses' perceived well-being.

sis 1 is confirmed.

By inserting the moderators into the relationship between the emotional load and surface acting, results show that the weight of the emotional load on surface acting increases with increasing age and length of service. By inserting moderators into the relationship

Conditional effects of emotional load and surface acting at values of

age and length of service are reported in Table 5.

with surface acting ( $\beta = 0.508$ , ES = 0.03, p = 0.000), which in turn is associated with a decrease in perceived well-being ( $\beta = -0.281$ ,

ES = 0.05, p = 0.000). Mediation is partial, as emotional load has a

significant effect on perceived well-being both directly ( $\beta = -0.169$ ,

ES = 0.13, p = 0.001) and indirectly, through the effect of surface

acting ( $\beta = -0.143$ , ES = 0.03, 95% IC = -0.208, -0.084). Hypothe-

carried out. Table 3 shows the results with age as the moderator in the relationship between emotional load and surface acting, and

length of service as the moderator in the relationship between surface

acting and general health. Table 4 shows the results with the length of

service as the moderator in the relationship between emotional load

and surface acting, and age as the moderator in the relationship

between surface acting and general health. Gender was used as a con-

To test hypotheses 2 and 3 a moderated mediation model was

Variable	Mean	SD	1	2	3	4	5
1. Age	42.47	11.95	1				
2. Length of service	8.90	10.11	0.717**	1			
3. Emotional load	2.76	0.83	-0.163**	-0.143**	1		
4. Surface acting	2.16	0.76	-0.049	-0.094	0.507**	1	
5. General health	2.44	0.81	0.111*	0.105*	-0.326**	-0.375**	1

TABLE 1 Means. standard deviations, and correlations among study variables (N = 359).

\*p < 0.05; \*\*p < 0.01.

FIGURE 1

**TABLE 2** Mediation effect of surface acting in the relationship between emotional load and general health (N = 359).

	Model 1—Surface acting		Model 2-Gene	Model 2–General health		Model 3–General health (total effect model)	
Predictors	β	SE	β	SE	β	SE	
Gender	-0.041	0.190	0.079	0.174	0.090	0.176	
Age	0.099	0.010	0.064	0.039	0.037	0.040	
Length of service	-0.084	0.108	-0.008	0.142	0.015	0.143	
Emotional load	0.508**	0.030	-0.169**	0.133	-0.312**	0.119	
Surface acting			-0.281**	0.052			
R <sup>2</sup>	0.264		0.176		0.118		
F	31.68**		15.10**		11.87**		

Note: Gender was coded so that male = 0.5 and female = -0.5. \*p < 0.05; \*\*p < 0.01.

**TABLE 3** Moderated mediation effects with age as the first moderator and length of service as the second moderator (N = 359).

	Model 1—Surface acting		Model 2–General health		
Predictors	β	SE	β	SE	
Gender	-0.096	0.103	0.187	0.111	
Emotional load	0.497**	0.046	-0.190**	0.056	
Surface acting			-0.272**	0.056	
Age	0.040	0.046			
Length of service			0.036	0.050	
Emotional load $ imes$ Age	0.105*	0.047			
Surface acting $\times$ Length of service			0.100*	0.048	
R <sup>2</sup>	0.271		0.184		
F	32.84**		15.96**		

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Note: Gender was coded so that male = 0.5 and female = -0.5. \*p < 0.05; \*\*p < 0.01.

**TABLE 4**Moderated mediationeffects with the length of service as thefirst moderator and age as the secondmoderator (N = 359).

	Model 1—Surface acting		Model 2–General health	
Predictors	β	SE	β	SE
Gender	-0.076	0.105	0.200	0.109
Emotional load	0.497**	0.046	-0.187**	0.057
Surface acting			-0.285**	0.056
Age			0.065	0.049
Length of service	-0.014	0.047		
Surface acting $\times$ Age			0.137**	0.050
Emotional load $\times$ Length of service	0.110*	0.048		
R <sup>2</sup>	0.270		0.193	
F	32.66**		16.89**	

Note: Gender was coded so that male = 0.5 and female = -0.5. \*p < 0.05; \*\*p < 0.01.

**TABLE 5** Conditional effects of the focal predictors at values of the moderators (N = 359).

Moderator	Predictor	Outcome	Effect	SE
Lower age	Emotional load	Surface acting	0.361**	0.08
Higher age	Emotional load	Surface acting	0.608**	0.06
Lower length of service	Emotional load	Surface acting	0.407**	0.06
Higher length of service	Emotional load	Surface acting	0.607**	0.06
Lower age	Surface acting	General health	-0.462**	0.09
Higher age	Surface acting	General health	-0.141*	0.08
Lower length of service	Surface acting	General health	-0.353**	0.07
Higher length of service	Surface acting	General health	-0.173*	0.07

p < 0.05; p < 0.01.

between surface acting and perceived well-being, the detrimental role of surface acting on general health is worse for younger nurses who have spent fewer years in the role. Both hypotheses 2 and 3 are confirmed. The interaction effects are graphically represented in Figure 2. The graphs (Figure 2) show how in conditions of high emotional load, older nurses with many years spent in the role experience higher levels of surface acting. In conditions of high surface acting, younger nurses with few years spent in the role experience worse levels of general health.

## 5 | DISCUSSION

In line with the literature (Sciotto & Pace, 2022), this study hypothesizes that surface acting may act as a mediator in the relationship between emotional load and general health. The results demonstrated that emotional load is negatively related to nurses' perceived general health both directly and indirectly through the negative effect of surface acting. Therefore, the need for nurses to constantly perform



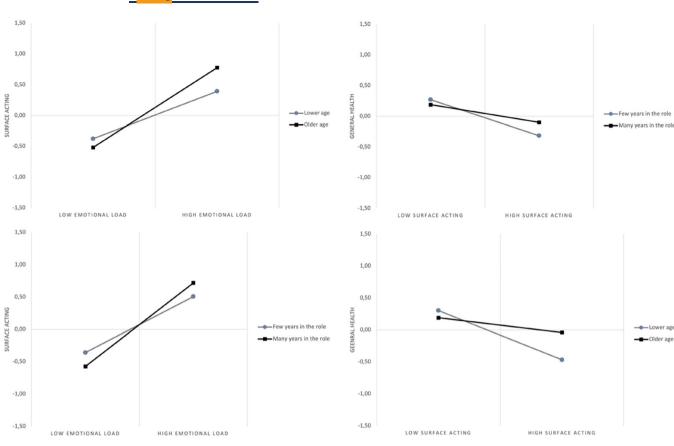


FIGURE 2 Interaction effects.

emotionally charged job tasks and, consequently, to manipulate displayed emotions could be a risk to their health. Forcing one's real emotions does not change them or make the sources of discomfort disappear (Hochschild, 1983). The need to deal with suffering or anger, as well as the possibility of feeling discomfort or helplessness, are elements that characterize nursing work and constitute a source of stress (Bria et al., 2012; Makkai, 2018). However, when the manipulation of visible emotions is added, this forcing could contribute to health problems (Andela et al., 2016; Chou et al., 2012; Kern et al., 2021; Schmidt & Diestel, 2015). This constitutes a relevant warning sign, as well-being is closely related to work performance (Holman et al., 2008; Ma et al., 2015). The underlying implication is that emotional labor should not be overlooked, as nurses with higher levels of occupational well-being perform better, and this translates into more positive patient interactions and improved job performance (Powell et al., 2015), with benefits for everyone (nurses, healthcare facilities, colleagues, and patients' families).

Another aim of the study was to verify the moderating effects of nurses' age and length of service. The results show a significant difference between young and less experienced nurses and older and more experienced nurses in how they choose to deal with the emotional load and in the way their perceived general health is affected by it. In our sample, surface acting does not seem to be used and experienced in the same way throughout the various stages of nursing careers. Contrary to what has been found in the literature (Ma et al., 2015), it

seems that older and more experienced employees feel no less obliged to adhere to emotional rules. This could be a further confirmation of the previously discussed implications on the importance of not neglecting the emotional labor aspect for the occupational well-being of nurses, as the need to regulate emotions does not decrease over the years.

The results also show that, in conditions of high surface acting, the levels of well-being are significantly lower for younger nurses and with fewer years spent in the role. This finding may be in line with the literature, which demonstrated a positive association between years of experience and greater chances of recovering energy (Baldwin & Daugherty, 2004). Over the years, nurses may become accustomed to the use of surface acting as a necessary strategy for the emotional regulation requirements of their job. The effects on the health of younger and less experienced nurses, on the other hand, are more severe. The obligation to manipulate the displayed emotions is a stressor that may jeopardize the motivation of the new generations of nurses, who could incur negative consequences, such as burnout (Andela et al., 2016), from the very beginning of their careers.

#### Limitations 5.1

The limitations of the study are several. First, the cross-sectional design prevents causal explanations of relationships between study

variables from being drawn. Secondly, the sole use of self-report measures and the smallness of the sample represents a limit to the generalization of the results. Finally, to ensure anonymity, no indication of the hospital wards of the participating nurses was included in the sociodemographic data; this, unfortunately, deprived us of a control variable that could have been crucial for a better interpretation of the results.

## 6 | CONCLUSIONS

In conclusion, surface acting could be a stressor only for younger and early-career nurses, not yet accustomed to bearing the burden of manipulating the emotions displayed. On the other hand, the amount of perceived emotional load would seem to be a stressor for older nurses with many years of experience behind them. Is it therefore possible to regulate one's emotions, but not the need to deal with them on a daily basis? The data seem to suggest that in the nursing profession, the burden of emotional demands makes it necessary for nurses to resort to surface acting to respond to the dissonance between the emotions actually felt and those that need to be displayed. In the early stages of the nursing career, this condition leads to a deterioration in well-being levels. On the other hand, implementing this strategy seems to be less connected to the worsening of the perceived general health levels over time.

## 7 | RELEVANCE FOR CLINICAL PRACTICE

There are several practical implications. On the one hand, it would be appropriate to foster in younger nurses a greater awareness of the weight of emotions, and the notion that it is improbable to be immune to the constant exposure to emotionally salient events. We believe it is necessary to underline the value of specific training dedicated to this aspect to protect the nurses and, indirectly, the patients (Makkai, 2018; Underman & Hirshfield, 2016). It cannot be considered sufficient for a healthcare facility to simply wait for the nurse to gain experience and learn at their own expense to implement strategies which, if acted unconsciously, can still lead to forms of professional discomfort and, in the long run, to work-related stress (Andela et al., 2016; Karimi et al., 2014; Van Dijk & Kirk-Brown, 2006).

Based on the results of this study, it could be a functional strategy to associate young nurses with more experienced colleagues so that they can provide useful indications on emotional management through mentoring practices. Since some wards are more emotionally charged both in terms of emotional turbulence (e.g., emergencies) and in terms of emotional burden (e.g., oncology wards), another strategy could be to implement a more equitable and efficient sorting of nurses between wards based on their attitudes to avoid individuals finding themselves in emotionally charged wards when and/or if they are not ready to face them. An alternative could be to increase the possibility of rotating between wards, in order to distribute the emotional load and provide employees with a greater chance of recovery.

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Finally, another implication concerns the provision of psychological support, inserting or expanding the presence of psychologists within hospitals so that employees can approach them more easily and quickly.

Since nursing is an essential job, the quality of which affects patients, protecting their well-being is of primary importance. At the same time, it cannot be overlooked that, in planning nursing careers (from the selection of trainees to the professional insertion phases), adequate attention may not be paid to the need for specific emotional management competencies, an aspect which is not necessarily congenital and therefore can be trained to prepare new nurses for the impact of emotional loads.

#### AUTHOR CONTRIBUTIONS

**Francesco Pace:** Conceptualization; writing – original draft; writing – review and editing; supervision. **Giulia Sciotto:** Conceptualization; methodology; writing – original draft; writing – review and editing. **Naomi Alexia Randazzo:** Writing – original draft; writing – review and editing. **Lorenzo Russo:** Conceptualization; data curation; writing – review and editing.

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#### CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in OSF repository at https://osf.io/2fyns/?view\_only=a852b81d339b44 7bb6f3c504035931c6.

#### ETHICS STATEMENT

The study was conducted in accordance with the Declaration of Helsinki and approved by the Bioethics Committee of the University of Palermo (protocol n. 72/2022). Informed consent was obtained from all the subjects involved in the study.

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