

EUTHYMIA, PSYCHOLOGICAL WELL-BEING, AND PROFESSIONAL QUALITY OF LIFE IN HEALTH CARE WORKERS

Emanuele Maria Merlo, Federica Sicari, Liam Alexander MacKenzie Myles, Salvatore Settineri

Abstract

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Objective: Euthymia is a transdiagnostic construct characterized by the presence of positive mood states, psychological flexibility and resilience. These components contribute to psychological wellbeing and support mental functioning. Exposure to suffering and high levels of stress can lead to the onset of burnout and secondary traumatic stress, but also lack of compassion satisfaction. The study aimed to test the existing relationships between euthymia, psychological well-being, and factors associated with quality of life of healthy participants involved in medical settings.

Method: The sample was composed of 177 healthy participants involved in medical settings, 118 women (66.7%) and 59 men (33.3%) aged between 19 and 69 years old (mean = 27.16; SD = 8.47). Standardized psychodiagnostics instruments were used to assess euthymia (Euthymia Scale-ES), psychological well-being (The Well-Being Index scale-WHO-5) and the quality of life of the involved participants (Professional Quality of Life Measure-ProQOL-5).

Results: The results showed that gender, well-being and psychological well-being were predictors of compassion satisfaction and secondary traumatic stress. Specifically, female gender predicted higher levels of compassion satisfaction. Well-being and psychological flexibility predicted higher levels of compassion satisfaction and lower secondary traumatic stress. Psychological well-being predicted higher levels of compassion satisfaction.

Conclusions: Promoting euthymia and well-being helps individuals to preserve psychological well-being and increase tolerance to stressful life situations. Results highlighted the need for promoting health care professionals' euthymia and well-being. In line with evidence, encouraging interventions based on evidence appears relevant.

Key words: affectivity, clinical psychology, euthymia, mental health, mood, well-being

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1. Introduction

Psychological well-being and Professional Quality of Life (ProQOL) represent domains of particular interest in literature (Cavanagh et al., 2020; Fitzgerald, 2020; Zhou et al., 2021). Given the relevance of work in the processes of adaptation of individuals and the issues related to various activities, these domains gain increasing scientific relevance (Boreham et al., 2016; Masci et al., 2022; Orlenko, 2023; Raccanello et al., 2023). In this sense, considering the psychological well-being and the quality of life of workers is fundamental, especially when these activities refer to clinical practice and the assistance of people suffering from serious and disabling diseases (Austin et al., 2017; Laverdière et al.,

2019).

Current evidence suggests that the working life of caregivers and health care workers is influenced by several important factors (King & Fayers, 2008; Klein et al., 2018; Sprang et al., 2007). In this sense, the mental health of workers facing different types of diseases plays a central role (Cavanagh et al., 2020; Gabriel et al., 2020; Haber, 2013). These studies move both in terms of the recognition of adverse outcomes derived from work activities, and in terms of the various adaptation/maladjustment processes and intervention programs necessary to restore optimal levels of mental health. Risk factors, such as burnout, in this sense are many, although represented in the literature often neglected in local and territorial realities. These risks

need to be given greater consideration in order to provide for their redeployment and the structuring of interventions (Ochoa et al., 2020; Ruiz-Fernández et al., 2020; Tawfik et al., 2021). Several studies have supported the transition from a static formulation to a more dynamic construct of mental health based on the ability to maintain or restore well-being and adaptation (Card, 2017; Leonardi, 2018; Myles, 2021a; Shilton et al., 2011).

With greater emphasis on well-being, the need to address mental health to the field of health promotion has been strongly recognized (Lara-Cabrera et al., 2020; Lindert et al., 2015; Linton et al., 2016). However, identifying positive feelings and functioning as key factors for mental health was more complex than expected (Galderisi et al., 2015). In their clinical judgment, psychiatrists still focus on evaluating participant's maladjustment rather than positive characteristics (Aho, 2008; Double, 2002; Mellsoy et al., 2007).

Currently, the assessment of psychological well-being requires an integrative framework that can be included in the concept of "euthymia". Euthymia, as originally introduced by Fava and Bech (2016) and recently developed by Fava and Guidi (2020), refers to a transdiagnostic construct characterized not only by the lack of mood disorders but above all by the presence of positive affectivity, psychological flexibility, well-being and resilience. This psychological state can be described as a healthy level of functioning characterized by an optimal balance between affectivity and cognition. Psychopathology (affective) can be considered to be the result of a deviation from this condition (Garamoni et al., 1991; Myles, 2021a, 2021b).

According to these criteria, the evaluation of mental health must not be identified in the absence of disease but in positive characteristics such as autonomy (Myles, 2021b; Myles et al., 2020, 2021), environmental mastery, satisfying relationships, individual growth, self-realization and self-acceptance (Jahoda, 1958). These components represent relevant aspects that contribute to a variable extent to the state of balance of the participant, compensating for a deterioration in other aspects of mental functioning (Galderisi et al., 2015).

The need to promote positive mental health has extended beyond the clinical context and is finding recognition among healthy participants involved in the medical field (Esposito et al., 2024; Picco et al., 2017). Several studies have found that low levels of well-being compromise welfare activities, associated with lower satisfaction, lower quality of life, high turnover and the onset of physical issues deriving from psychological functioning as well as linked to chronic conditions for both health care workers and patients (Andò et al., 2021; Barchetta et al., 2021; Boichicchio et al., 2021; Conversano & Di Giuseppe, 2021; Di Giacomo et al., 2019; Di Giuseppe, 2024; Edwards & Burnard, 2003; Kanste, 2011; Marchini et al., 2021; Martino et al., 2021a, 2021b; Myles & Merlo, 2021; Orrù et al., 2021; Popoviciu et al., 2022; Ranieri et al., 2021; Ricciardi et al., 2023; Scanlan et al., 2013; Sergi et al., 2023; Vicario et al., 2023; Wright & Bonett, 2007).

This reference is classically oriented to psychological dynamics influencing and affecting physical domains (Baldino et al., 2023; Caputo et al., 2022; Conversano, 2019; Myers, 2020), whose impact is notoriously extended to lifespan sphere. Frequent mental health issues have also been found in these participants, with

a high incidence of anxiety and depression (Letvak et al., 2012). Burnout syndrome or Secondary Traumatic Stress (STS) are capable of compromising the ability of the clinician to practice effectively (Conversano et al., 2020; Di Giuseppe et al., 2019; Gangemi et al., 2021; Gori et al., 2021; Merlo et al., 2020a, 2021b; Rahne-Nita et al., 2021; Shanafelt et al., 2002; Tarcan et al., 2017; Urban & Urban, 2020).

Burnout concerns the broader consequences of a stressful environment, including emotional exhaustion, depersonalization, and a reduced sense of accomplishment (Stamm, 1997). It represents a gradual process that increases the risk of developing STS, a condition related to emotional symptoms and responses resulting from trauma exposure (Figley, 2013). Exposure to high levels of stress can determine the onset of the aforementioned conditions, if not balanced by the presence of adequate psychological resources. Psychological flexibility is identified as an essential component of euthymia and considered extremely relevant for maintaining well-being.

This ability allows the participant to adapt to various situations in order to preserve the overall functioning (Kashdan & Rottenberg, 2010). Psychological flexibility is directly related to the concept of resilience, defined as the ability to maintain or recover high well-being (Ryff et al., 1998). The integration of these factors, as showed by Jahoda (1958), in association with Compassion Satisfaction (CS), contributes to the safeguarding of mental health difficulties (Collins & Swartz, 2011; Devilly et al., 2009; Merlo et al., 2020b). Euthymia promotion and the use of an integrative approach can therefore reveal innovative and promising perspectives according to current evidence addressing euthymic components as protective factors, providing mental integrity, increasing tolerance and resistance to stress (Fava & Sonino, 2017; Fava & Tomba, 2009; Hasler, 2016; Ryff, 2014).

1.1. Objective and hypotheses

This study was aimed at highlighting the existing relation among euthymia components, psychological well-being, clinical satisfaction and the onset of psychopathology due to clinical assistance. In these terms, the participants involved in the study were health care workers working both in public health system and in private practice.

In this study we hypothesize that:

- (1) There are significant correlations among euthymia and clinical outcomes variables. In particular, we hypothesize that euthymic variables are significantly and positively associated with clinical satisfaction and negatively associated with burnout and STS;
- (2) There are significant and positive correlations among euthymia factors and well-being.
- (3) There are significant correlations among well-being and satisfaction, burnout, STS. In particular we hypothesize that well-being is positively associated with clinical satisfaction but negatively associated with burnout and STS.
- (4) There are significant relations among age, gender, WHO-5, ES-PS, ES-PWB (set of predictors) and clinical commitment quality indexes (dependent variables, respectively compassion satisfaction, burnout and secondary traumatic stress) highlighting the existing casual role of the predictive independent variables.

2. Materials and methods

2.1 Procedure and participants

The sample consisted of 177 healthy participants involved in clinical settings as health care workers, including 118 women (66.7%) and 59 men (33.3%). The age of participants ranged from 25 to 69 years (Mean age = 27.16; SD = 8.47). All the participants were involved in clinical activities as follows: 16.9 % of participants were hospital physicians, 71.8% of participants were in training physicians, 5.1% were post-graduate private practice nurses, 3.4% were private practice physicians, 2.3 % were retired nurses and 0.6% were retired physicians (these last two categories involved in activities of voluntary and informal health care providers).

Participants declared their consent to the study and specified some personal data such as age, gender, educational qualification and occupation. In compliance with the Italian government provisions relating to the Covid-19 pandemic, the participants filled out the protocols online.

Before providing informed consent, each participant was informed about the anonymous nature of the methods of data processing, as required by the procedures of the ethical committee and evidenced by the approval (University of Messina COSPECS Ethical Committee, number: COSPECS_14_2020).

2.2 Observation instruments

The protocol consisted of the following three tests that the participants had to fill out.

Euthymia Scale (ES) is a self-report scale consisting of 10 items for the evaluation of euthymia (Fava & Bech, 2016). Clinimetric analysis revealed the two-dimensional nature of the scale as the first 5 items assess psychological flexibility (Jahoda, 1958), whereas the last 5 items measure psychological well-being. In the Italian version of the Euthymia Scale (Carrozzino et al., 2019), each item is scored dichotomously as False (0) or True (1), resulting in an overall score ranging from 0 to 10, with higher scores indicating a more euthymic state. The weights of the items referred to the two factors provided for the following assignment: Factor 1, items 1, 2, 3, 4, 5; Factor 2, items 6, 7, 8, 9, 10. The clinimetric parameters for the validation of the scale are scalability and incremental validity, examined through Mokken analysis and hierarchical linear regression analysis. With reference to Mokken's analysis, the following parameters emerged from the studies conducted on healthy participants: .25 for the total score of Euthymia Scale; .28 for psychological flexibility (PS) and .30 for psychological well-being (PWB). The clinimetric properties of ES have been tested via the Item Response Theory (IRT) models that is Rasch and Mokken analyses (e.g., Sasaki & Carrozzino et al., 2021). The Clinimetric Patient-Reported Outcome Measures (CLIPROM) criteria has been applied to assess cross-cultural validity and sensitivity of the ES and WHO-5 (e.g., Carrozzino et al., 2022).

The Professional Quality of Life Scale (ProQOL-5) (Stamm, 2005) in its Italian adaptation (Palestini et al., 2009), is a self-report tool that evaluates the positive and negative aspects associated with clinical experience. This test evaluates three dimensions: Compassion Satisfaction concerns the positive effects related to the

clinical assistance of traumatized or suffering people; Burnout is associated with a gradual and progressive malaise and exhaustion typical of those participants involved in the clinical field; Secondary Traumatic Stress concerns a condition of strong emotional load deriving from empathic involvement with victims of a trauma. ProQOL-5 consists of 30 items, based on an ordinal 5-point Likert scale. In the validation study, the reliability indicators were Compassion Satisfaction $\alpha = 0.88$; Burnout, $\alpha = 0.75$; Secondary traumatic stress, $\alpha = 0.81$. The weights of the items referred to the three factors provided for the following assignment: Factor 1, items 3, 6, 12, 16, 18, 20, 22, 24, 27, 30; Factor 2, items 1, 4, 8, 10, 15, 17, 19, 21, 26, 29; Factor 3, items 2, 5, 7, 9, 11, 13, 14, 23, 25, 28.

The Well-Being Index scale (World Health Organization, 1998) is a self-report scale that contains five items evaluating psychological well-being through a 6-point Likert scale ranging from 5 (always) to 0 (never). The items cover positive mood, vitality and interest. The item scores were added to obtain an individual score ranging between 0 and 25, with higher scores indicating higher levels of well-being. Usually the WHO-5 score is multiplied by 4 to have a range 0-100. Several studies have reported internal consistency, with α coefficients ranging from 0.82 to 0.95 (Bech et al., 2003; Löwe et al., 2004). Mokken analysis demonstrates unidimensionality (Awata et al., 2007).

2.3 Statistical analysis

Numerical data were expressed as means and standard deviations and the categorical variables as numbers and percentages. After verifying and realizing that the distribution was not normal, the Spearman test was used to evaluate the correlations among variables of the following instruments. Linear hierarchical regressions were performed to evaluate the influence of a series of independent predictors (age, gender for the first step, age, gender and quality of life score for the second step, age, gender, quality of life, psychological flexibility and psychological well-being for the third step) on the ProQol variables. Statistical analyses were performed using SPSS 26 for Windows package. A p-value smaller than 0.050 was statistically significant.

3. Results

Descriptive statistics (mean and standard deviation) are reported in **table 1**, in order to highlight the presence of considered phenomena.

Hierarchical linear regression analysis allowed the emergence of possible significant relations among the set of predictive variables (age, gender, WHO-5, ES-PS, ES-PWB) and clinical commitment outcomes (dependent variables: compassion satisfaction, burnout, secondary traumatic stress). Starting with age, no significant relations emerged through the three steps of the hierarchical linear regression model. Gender appeared to predict higher scores of compassion satisfaction along the tree steps. Considering these significant relations, female participants appeared to report higher rates of compassion satisfaction. WHO-5 predicted lower scores of secondary traumatization for both second and third steps, these relations were negative, demonstrating how well-being assumes an opposite direction with reference to compassion fatigue, predicting lower risk for secondary traumatic

Table 1. Descriptive statistics for the sample

	Mean	Standard deviation
Age	27,16	8,47
Euthymia Scale Total Score	6,74	2,16
Euthymia Scale Psychological Flexibility	3,65	1,19
Euthymia Scale Psychological Well-Being	3,08	1,41
Compassion Satisfaction	39,79	5,25
Burnout	23,23	4,93
Secondary Traumatic Stress	23,72	5,96
WHO-5	57.33	16.01

Table 2. Correlation coefficients among ES, ProQoL, WHO-5 variables

	WHO-5	Compassion Satisfaction	Burnout	Secondary Traumatic Stress
Compassion Satisfaction	.252**	-	-	-
Burnout	-.518**	.173*	-	-
Secondary Traumatic Stress	-.321**	-.082	.591**	-
ES- Total Score	.583**	.205**	-.372**	-.343**
ES – Psychological Flexibility	.350**	0.067	-.276**	-.351**
ES Psychological Well-Being	.615**	.262**	-.228**	-.228**

*p < 0.05 (two-tailed); **p < 0.01 (two-tailed). Bold values were the significant values.

Table 3. Hierarchical linear regression analysis

		Compassion satisfaction		Burnout		Secondary traumatic stress	
		B (CI)	p	B (CI)	p	B (CI)	p
Step 1	Age	-.011 (-.102/.079)	.808	-.005 (-.074/.063)	.878	-.026 (-.131/.078)	.621
	Gender	2.424 (.798/4.049)	.004*	.259 (-.973/1.490)	.679	1.675 (-.195/3.546)	.079
F		4.399		.101		1.725	
Adjusted R ²		.037		-.010		.008	
Step 2	Age	-.019 (-.107/.069)	.674	-.003 (-.071/.066)	.942	-.015 (-.114/.084)	.767
	Gender	2.708 (1.125/4.291)	.001*	.153 (-1.078/1.384)	.806	1.252 (-.526/3.030)	.166
	WHO-5	.333 (.146/.520)	.001*	-.123 (-.269/.022)	.096	-.495 (-.705/.285)	<.001*
F		7.230		1.003		8.495	
Adjusted R ²		.096		.000		.113	
Step 3	Age	-.001 (-.088/.085)	.973	.009 (-.060/.078)	.804	.006 (-.091/.103)	.900
	Gender	2.859 (1.327/4.392)	<.001*	.157 (-1.068/1.383)	.800	1.178 (-.546/2.901)	.179
	WHO-5	.063 (-.169/.295)	.594	-.146 (-.331/.040)	.123	-.402 (-.663/.141)	.003*
	ES-PS	-.055 (-.712/.601)	.868	-.509 (-1.034/.015)	.057	-1.375 (-2.113/-.637)	<.001*
F		7.487		.013		8.186	
Adjusted R ²		.156		1.458		.170	

* p < 0.05; Bold values were the significant values

stress. Considering euthymia, psychological flexibility predicted lower scores of secondary traumatic stress, as well as psychological well-being predicted higher scores of compassion satisfaction. No significant relations emerged among the selected predictors and burnout.

4. Discussions

The aim of our study was to examine the relationship between euthymia and psychological well-being,

analyzing their association with various aspects relating to professional life. We focused in particular on the well-being of healthy participants involved in medical settings, figures particularly exposed to traumatization phenomena and high emotional loads.

As known in literature, the role of euthymia ensures optimal psychological welfare, owing to the presence of positive affect, flexibility and resilience (Jahoda, 1958). According to Fredrickson's model (1998), individuals experiencing positive emotions over time, gain personal gratification and satisfaction from their

care activity (Radey & Figley, 2007). This can provide greater flexibility and innovative ideas concerning patient intervention, help to achieve high Compassion Satisfaction and reduce the risk of exposure to Secondary Traumatic Stress (Durkin et al., 2016; Maben et al., 2010; Stamm, 2005), as well as trauma-related phenomena in a broader sense (Edgelow et al., 2020; Granieri et al., 2018; Merlo et al., 2021a, 2021b, 2021c; Mezzalana et al., 2023; Midolo et al., 2020).

In line with results, higher levels of compassion satisfaction were predicted by the female gender and psychological well-being related to euthymia. Professionals with high levels of CS feel satisfied with their care activity and indeed a high correlation with the dimensions of well-being and with positive growth has been found in other studies (Gibbons et al., 2011; Zeidner & Hadar, 2014). In line with the findings in the literature, job satisfaction corresponds to high levels of individual well-being and can also affect productivity, performance, quality of care and patient safety (Emmanuel Olatunde & Odusanya, 2015; Healy & McKay, 2000; Murrells et al., 2008). Shanafelt et al. (2002) have proposed a definition of well-being that goes beyond the simple absence of distress and includes the possibility of achieving success in various aspects of personal and professional life.

In the present study, there were no significant results with regard to burnout, also considering that the model was weakly represented by the data. Secondary traumatic stress was predicted by lower levels of well-being and psychological flexibility related to euthymia. Adequate flexibility is relevant for health care professionals, in order to recognize the needs of the context, adopt functional strategies, mitigate the effects of care and preserve their well-being (Brooks et al., 2019; Kashdan & Rottenberg, 2010; Settineri et al., 2019; Sonnentag, 2015; Veage et al., 2014). As argued by Stanley et al. (2017), exposure to difficult life conditions can have an impact on mental and physical health. The presence of adequate resources helps individuals cope with stress and obtain rewards.

In particular, the lack of flexibility can produce states of depression, anxiety and the general tendency to experience negative emotions for prolonged periods, culminating in neurotic symptoms (Kashdan & Rottenberg, 2010; Klanker et al., 2013). These results suggest that working on increasing psychological well-being and euthymia in clinical practice can favor not only the reduction of symptoms but also the overall improvement of the participant's quality of life (Fava & Guidi, 2020; Sasaki et al., 2021).

Considering current trends in the field of professional life, the American College of Emergency Physicians (ACEP), has developed a multidimensional model of well-being, formed by occupational, emotional, physical, financial, social and intellectual components (Eckleberry-Hunt et al., 2009; Lall et al., 2019). In this model it is evident that these areas are interconnected and that any approach to wellbeing must incorporate the different psychosocial aspects that particularly affect the health participants involved in medical settings (Stang et al., 2024).

The effects of stress and low quality of life on health are well documented by field research which has found that stress levels and the presence of minor psychiatric disorders in individuals working in the health care setting are higher than in other occupational groups (Deville et al., 2009; Huggard & Unit, 2013; Meadors et al., 2010).

In particular, secondary traumatization concerns the undesirable outcomes of working directly with

traumatized populations and presents as negative transformative processes experienced by the health professionals when exposed to traumatized patients (Boscarino et al., 2004; Pearlman & Saakvitne, 1995). However, the data in the literature show how the operators who are more oriented towards the engagement and the centrality of patients and family members feel more gratified at work, report high indices of well-being and, in general, lower levels of burnout and STS (Barello et al., 2020). This study has allowed significant results to emerge in the field of clinical care. Based on the findings, it is possible to suggest significant clinical implications. Euthymia has emerged as a fundamental factor in the clinical activity of the participants involved. Given the findings, it is clear that good levels of euthymia correspond to a decrease in the risk of occurrence of secondary traumatization. In the opposite sense, the trend of euthymia and compassion satisfaction is homologous. Data have implications for understanding how maintaining or promoting euthymia is a relevant objective in the clinical field. In terms of both patients and health care professionals, maintaining positive and adaptive affectivity is an important health factor. Thus, well-being and euthymia emerged as relevant factors inspiring important reflections.

The assessment of the levels of euthymia and well-being of health workers is the first fundamental step in structuring psychological interventions. This necessity, based on the necessary psychological assessment procedures of health professionals, therefore represent the basis for evidence-based intervention practices.

5. Strengths and limitations

The study proposed the analysis of variables well represented in the literature. The instruments used were valuable and important components could be detected through their use. In this sense, the study has allowed the emergence of important data on the quality of life, well-being and affective functioning of participants. Despite the interesting and significant results, the study presents limitations. The sample is contained and there is a marked prevalence of female participants. The results obtained refer to self-report scales, so only the subjective representations of the members of the population examined could be considered. Although the participants involved were all engaged in assistance activities, the heterogeneity of the sample suggests the need to work through more homogeneous groups for further study. The results are in any case correlative, not fully causal. The possibility that a better professional quality of life can promote psychological well-being or that other unmeasured factors cause other effects cannot be excluded. This point requires further research in the clinical and care field.

6. Conclusions

The current study supports the early identification of professionals vulnerable to low satisfaction. Attention to the euthymic components and the use of techniques that focus on positive affectivity and psychological well-being can help professionals acquire a better evaluation of themselves and be protected from any trauma.

Research on euthymia in a clinical context can be conceived as a transdiagnostic strategy to be incorporated into a treatment plan, since although the evidence supporting its clinical value is still limited, current studies demonstrate its efficacy in promoting psychological well-being, through a reduction of

vulnerability to relapse and an increase in the level of recovery.

Overall, based on our results, rather than evaluating the dysfunctions shown by participants operating in the medical field, it would therefore be more useful to work on psychological well-being, on positive affectivity and in general on the achievement of a euthymic condition. Such a method would not only favor an improvement in performance and gratification linked to the profession but would promote a global improvement in the quality of life of those involved in care activities.

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