

THE EFFECT OF THE PANDEMIC ON THE CARE OF PATIENTS WITH MENTAL DISORDERS: MEASURE OF “COMPASSION FATIGUE” AND “BURN-OUT” IN THE OPERATOR

Maria Vincenza Minò¹, Antonella Vacca^{2,3}, Ivana Colizzi³, Barbara Solomita⁴,
Francesco Franza⁴ & Giuseppe Tavormina⁵

¹Psychiatric Rehabilitation Center “Don Tonino Bello” - Assoc. M.I.T.A.G. - Onlus, Brindisi, Italy

²Mental Health Department, ASL TA, Grottaglie - Manduria, Italy

³Psychiatric Rehabilitation Center “Città Solidale”, Latiano, Italy

⁴Psychiatric Rehabilitation Center “Villa dei Pini”, Avellino, Italy

⁵“Psychiatric Studies Center” (Cen.Stu.Psi.), Provaglio d’Iseo, Italy

SUMMARY

Background: The Covid-19 Pandemic has had a significant impact on psychophysical well-being and the ability to work productively in contexts concerning people’s physical and mental care. The helping professions involved have seen an increase in stress levels, a sense of helplessness, fear, pain and social isolation. They are anchored to the hope of being able to return to their normality.

Method: In this study, 87 mental health operators were evaluated, divided into nurses, psychiatric rehabilitation technicians, educators, social workers, psychologists and doctors, working in two psychiatric care rehabilitation communities in Puglia and Campania in southern Italy.

Results: The results obtained with the administration of the scales ProQOL, BHS, Save-9, BDI-II, BEES reported a remarkable impact in nursing and medical professions due to the pandemic. A 11% burn-out was reported by nurses.

Conclusions: The collected data are comparable to the previous work (Franza et al. 2015, 2020); however, there is no evidence of a high level of burnout in the helping professions involved in this study.

Key words: compassion fatigue - burn-out - mental health - mental disorders

* * * * *

INTRODUCTION

The World Health Organization (WHO) defines health as the ability to actively participate in community and social life, thus overcoming the traditional definition characterized by "absence of disease" (Sargent 2017, Tanışman et al. 2014, Chopra 2009). The Health Care Professional (HCP) includes all professionals who assist people with organic and mental disorders; he is confronted daily with the emotional experience of empathy, suffering and fatigue during his work (Auer et al. 2015). In the workplace, different types of occupational stress have been identified, including burn-out, the fatigue of compassion and indirect or secondary trauma. In general, high levels of stress are responsible for burn-out, not only in the health care section but in all professions. Work-related stress represents an element of extreme pressure and emotional burden that negatively affects the worker’s quality of life. This stress is considered to be a risk factor for many organic and mental disorders, such as hypertension, cardiovascular, respiratory and psychiatric diseases (e.g., depression) (Schelvis et al. 2017, Ruotsalainen et al. 2014, Mino et al. 2006). Fears, burden, pain, work suffering and the "exhaustion" of physical and emotional resources result in the development of mental disorders. In particular, the so-

called Common Mental Disorders (CMDs) include depression and anxiety. These are the most frequent causes of occupational disability (Petrosyan et al. 2017, Greenberg et al. 2015, Wang et al. 2008, 2003). The influence of CMDs is, however, poorly evaluated despite evidence pointing to the strong impact they have on the global quality of the subject’s life.

COMPASSION FATIGUE AND BURN-OUT

The impact of work related stress on staff and quality of life was assessed in terms of burn-out (BO), compassion fatigue (CF) and, in positive terms, as compassion satisfaction (CS). A strong critical element in the assistance of people with a diagnosis of serious, disabling, progressive, acute or chronic organic disease is represented by the "fatigue of compassion" (CF), which can be defined as "the reduced capacity of the caregiver in being empathic or in "handling the client’s suffering" and is "the natural behavioural and emotional consequence of being aware of a traumatic event experienced or suffered by the person being cared for" (Figley 1995, 2002). Compassion fatigue is a phenomenon often associated with the "cost, emotional burden of care"; it is a state of excessive tension and worry caused by the appearance of intrusive and para-

lyzing thoughts and images, anxiety, hypervigilance, painful experience of past events and irritability" (Figley 1995, 2002b, Wright 2004). All this can lead to errors of judgment; clinical errors, absence of diagnostic and care planning of the patient, that can seriously compromise health care (Cieslak et al. 2016, Figley 2002a, Bride et al. 2007). The definition of CF is relatively recent. The term was born in 1992, when nurse Joinson used it for the first time in a nursing magazine to describe the nurses' "psychological breakdown" during daily work in an emergency department. In his text Figley (1995) defined it as "a secondary traumatic reaction resulting from giving help or the desire to help suffering people". The key elements in his model include empathic ability, empathic response and residual compassion stress. More famous and widely used is the concept of the phenomenon of burn-out. Compassion fatigue (CF) and burnout differ, however, in several aspects. In fact, burn-out is not directly associated with the exposure to a stressful traumatic event. Anyone can experience stress in different work environments (for example, restaurants, shops, companies and institutions) and pressure is not directly associated with traumatic exposure. The development of burn-out can be gradual and is typically due to multifactorial situations, while the development of compassion fatigue is faster and can be caused by a single traumatic event (Rossi et al. 2012). Buscarino (2008) suggested that secondary trauma and occupational burn-out are distinct phenomena of compassion fatigue and that both syndromes are associated with trauma patients. There are several studies that agree on the evidence that burn-out in health care professionals is very high. These studies indicated that around one third of physicians experienced burn-out while working (Veyssier-Belot et al. 2015, Shanafelt et al. 2015) and that 25% to 60% of physicians experienced burnout in different medical specialties (de Paiva et al. 2017, Gazelle et al. 2015).

The aim of the study is to evaluate the role of fatigue and compassionate gratification of healthcare professionals during the performance of their work with patients admitted to residential structures and suffering from subacute or chronic organic diseases.

METHODS

In the months of May and June 2021, 87 health workers (HCW) were recruited in two psychiatric rehabilitation centers in Puglia: Assoc. M.I.T.A.G.- C.R.A.P. "Don Tonino Bello" in Brindisi and Coop. Città Solidale in Latiano and "Villa dei Pini" center in Avellino. During the observation phase, the effect of the Covid-19 pandemic on the psychological state of healthcare workers was assessed (61 females, mean age 40.033, SD±10.57 years; 26 men, mean age 45.23, SD±12.47

years). All participants were asked to sign consent forms to take part. The group of health workers consisted of 8 doctors (with 4 psychiatrists), 8 psychologists; 17 nurses; 5 psychiatric rehabilitation technicians (TeRP); 19 social workers; 21 social and health workers (ACS). All staff in this study were asked to anonymously complete the following scales to research stress levels, compassion fatigue, hope (or hopelessness) and symptoms of depression: Professional Quality of Life (ProQOL) (Stamm 2009); Beck Hopelessness Scale (BHS) (Beck & Steer 1993); Stress and Anxiety for Viral Outbreak - 9 items (SAVE-9) for healthcare professionals; Italian version (Tavormina et al. 2020); Beck Depression Inventory (BDI-II) (Beck et al. 2018, Italian edition); Balanced Emotional Empathy Scale (BEES) (Mehrabian 2018).

EVALUATION TOOLS EMPLOYED

The *ProQOL* is an evaluation tool to measuring the negative and positive effects of helping people who experience suffering and trauma. The following factors can be assessed with this scale: compassion satisfaction and compassion fatigue (burn-out and secondary trauma). Compassion satisfaction is the pleasure deriving from being able to do the work well.

The BHS is a rating scale composed of 20 items measuring the severity of hopelessness and negative attitudes to the future, in the short and long term.

The SAVE-9 (Stress and Anxiety to Viral Epidemics-9 items) scale has been developed as a tool to assess work anxiety and stress in response to the viral epidemic in health professionals engaged in preventing the spread of the virus and treating infected people. For the evaluation of a possible depressive symptomatology in a group of analyzed health workers we used the Beck Depression Inventory (BDI-II), created by Aaron T. Beck (Beck et al. 1996). It is a 21 multiple-choice-question self-report inventory, one of the most widely used psychometric tests for measuring the severity of depression. Statistical significance was ascertained with EZA Analyze 3.1 Excel Platform. Demographic variables and evaluation questions were subjected to descriptive analysis.

The BEES measures the emotional component of empathy, which indicates the tendency of a person to experience vicariously the emotional experiences of others. It is made up of 30 items, which produce a total emotional empathy score. The statistical analyzes 5 different aspects, or facets. The individual facets allow to define and to interpret the emotional empathy score.

RESULTS

In table 1, some epidemiological data of HCWs are included. Overall, 87 participants completed the one-time scales and assessments.

Table 1. Data PROQOL in HCWs

| | Mean | Sd± | Level CS Percentage (%) | | |
|--------------------------------|-------|-------|-------------------------|----------|-------|
| | | | Low | Moderate | High |
| Compassion Satisfaction | | | | | |
| Educators | 48.47 | 3.75 | 0 | 82.21 | 15.79 |
| Health workers | 37.44 | 8.13 | 11.10 | 66.60 | 22.20 |
| Nurses | 24.29 | 21.39 | 59.82 | 11.76 | 29.41 |
| Physicians | 22.75 | 13.44 | 50.00 | 37.50 | 12.50 |
| Psychologists | 42.23 | 4.91 | 0 | 42.86 | 57.14 |
| Rehab psyc ther | 40.38 | 3.70 | 0 | 75 | 25 |
| Social workers | 15.60 | 12.03 | 60 | 40 | 0 |
| Burnout | | | | | |
| Educators | 27.68 | 5.14 | 10.52 | 19.47 | 0 |
| Health workers | 23.67 | 6.42 | 22.20 | 77.70 | 0 |
| Nurses | 28.35 | 14.96 | 41.18 | 47.06 | 11.76 |
| Physicians | 27.13 | 4.22 | 12.50 | 87.50 | 0 |
| Psychologists | 25.55 | 6.16 | 33.33 | 66.66 | 0 |
| Rehab psyc ther | 26.75 | 7.27 | 12.50 | 87.50 | 0 |
| Social workers | 25.80 | 4.76 | 0 | 100 | 0 |
| Secondary Trauma | | | | | |
| Educators | 2.68 | 11.08 | 78.95 | 0 | 10.52 |
| Health workers | 29.67 | 15.91 | 55.50 | 0 | 44.50 |
| Nurses | 34.45 | 12.25 | 17.65 | 47.06 | 85.71 |
| Physicians | 33.00 | 9.04 | 12.50 | 75.00 | 12.50 |
| Psychologists | 31.68 | 11.09 | 23.81 | 47.62 | 28.57 |
| Rehab psyc ther | 25.58 | 13.56 | 62.50 | 12.50 | 25 |
| Social workers | 25.60 | 12.01 | 40 | 20 | 20 |

Table 2. Data BHS. Mean and percentage in each HCWs group

| | BHS | | Severity (%) | | | |
|-----------------|------|------|--------------|-------|----------|-------|
| | Mean | Sd± | Absence | Low | Moderate | High |
| Educators | 2.56 | 1.54 | | 26.31 | | |
| Health workers | 3.70 | 1.95 | | | 44 | |
| Nurses | 6.47 | 4.90 | | 29.41 | 23.53 | 11.76 |
| Physicians | 5.25 | 3.73 | | 37.50 | 25 | 12.50 |
| Psychologists | 2.68 | 1.49 | 76.19 | 23.81 | | |
| Rehab psyc ther | 5.50 | 6.30 | 50 | 25 | | 25 |
| Social workers | 3.20 | 3.42 | 60 | 40 | | |
| TOTAL | 3.74 | 3.62 | | | | |

Professional Quality of Life (ProQOL)

The results obtained with the ProQOL are similar to those of the previous scales, but they show a lower percentage of Compassion Fatigue and Secondary Trauma compared to the data produced by our previous study (Franza et al. 2015, Franza et al. 2020). The results of the Compassion Satisfaction (CS) subscale are interesting. Low CS levels were found in 59.82% of nurses and 50% of physicians. While high levels of CS were found in 57.14% of the SHWs and in 29.41% of nurses. The 60% low CS score in TeRPs is not significant for the small number of participants. The results of the burnout subscale are significant. Unlike previous studies, the most significant data that emerging from the burn-out subscale is the low level of burnout found in all subgroups. High levels of burnout were

found in 11.76% of participants in the group of nurses. Different results were observed with the Secondary Trauma subscale. In fact, high levels of Compassion Fatigue were found in 85.71% of nurses, in 44.5% of educators and in 28.57% of SHWs. Low levels of CF were shown in social workers (78.95%), in educators (55.5%), and psychologists (62.5%).

Beck Hopelessness Scale (BHS)

In our study the highest scores were in the group of nurses, physicians and psychologists (respectively, in 64.70% vs 75.00% vs 50%). However, the low number of psychologists and technicians should be highlighted with not statistically irrelevant results. More significant are the results obtained in the group of physicians (Table 2).

Table 3. Data BEES. Mean and percentage in each HCWs group

| | BEES (Factor T) | | |
|-----------------|-----------------|-------|------------|
| | Mean | Sd± | Percentage |
| Educators | 46.40 | 9.66 | 11.11 |
| Health workers | 51.74 | 6.84 | 9.52 |
| Nurses | 54.55 | 10.16 | 23.52 |
| Physicians | 44.00 | 19.60 | 12.50 |
| Psychologists | 48.50 | 8.12 | 12.50 |
| Rehab psyc ther | 56.00 | 11.02 | 20.00 |
| Social workers | 46.67 | 11.57 | 5.26 |

Table 4. SAVE-9 results for healthcare workers

| | SAVE-9 | | |
|-----------------|--------|------|------------|
| | Mean | Sd± | Percentage |
| Educators | 9.22 | 5.80 | 11.10 |
| Health workers | 10.80 | 6.08 | 14.28 |
| Nurses | 10.68 | 7.34 | 11.76 |
| Physicians | 12.38 | 7.76 | 25.00 |
| Psychologists | 11.00 | 7.05 | 12.50 |
| Rehab psyc ther | 6.20 | 4.15 | 0.00 |
| Social workers | 12.26 | 7.41 | 21.05 |
| TOTAL | 10.78 | 6.88 | 14.94 |

Table 5. Data BDI-II. Mean and percentage in each HCWs group

| | BDI-II | | Severity (%) | | | |
|-----------------|--------|-------|--------------|-------|----------|-------|
| | Mean | Sd± | Absence | Low | Moderate | High |
| Educators | 7.10 | 8.79 | 100 | - | - | - |
| Health workers | 5.42 | 6.84 | | 23.80 | | 4.76 |
| Nurses | 8.75 | 10.16 | 70.58 | 17.64 | - | 11.76 |
| Physicians | 10.25 | 8.28 | | 25.00 | - | - |
| Psychologists | 5.00 | 8.12 | | 12.50 | - | - |
| Rehab psyc ther | 8.50 | 8.62 | | - | 40.00 | - |
| Social workers | 5.11 | 6.64 | 78.95 | 5.26 | 5.26 | - |
| TOTAL | 6.73 | 7.97 | | | | |

Balanced Emotional Empathy Scale (BEES)

On the BEES scale the mean total score (Factor T) was 50.62 ($\pm SD 11.04$), indicative of a moderate level. The moderate level was observed in all subgroups of HCWs (see table 2). In HCWs subgroups the highest scores were in the category of nurses and therapists (respectively, 23.52% and 20.00%). On the other hand, the results in the facet patterns are interesting. In particular, high total scores were found in facet 1 (*impermeability to contagion from internal emotional states*) and in facet 5 (*tendency not to get involved in the conditions of fragile subjects*): respectively, 66.00 and 68.38). Facet 5 data should be underlined because of a high score in nurses (mean score: 66.12 ± 10.35 : 41.17%) and in social workers (mean score: 61.84 ± 12.72 : 36.84%) (Table 3).

Stress and Anxiety to Viral Epidemic - 9 items (SAVE-9) for Healthcare workers

The SAVE-9 (Stress and Anxiety to Viral Epidemics - 9 items) scale is a tool for assessing work anxiety and stress in response to the COVID-19 pandemic of health professionals working to prevent the spread of the virus and to treat infected people. The scale evaluates the anxiety and stress levels in healthcare workers. The data show a mean total score of 10.78 ($SD \pm 6.88$), with high levels above the breakpoint in 14.94% (Table 4).

Beck Depression Inventory (BDI-II)

The results obtained with the BDI-II indicate the presence of depressive symptoms of different severity in each group evaluated. It should be highlighted the presence of only 3 cases of severe symptoms, two in the group of nurses and one in the group of health workers. The importance of a diagnostic and therapeutic study in this group of workers should be emphasized.

CONCLUSIONS

The emerging data that show that especially doctors and nurses have been affected by the impact of the pandemic in the workplace. Further investigations should be carried out by increasing the number of professionals evaluated, in order to get additional data to compare with the results obtained in this study. Although, there is no evidence of a high level of burnout in the helping professions involved in this study; nurses reported a figure of just 11%. It is necessary to continue to attain a favorable working environment and psycho-physical well-being to allow all operators to carry out their duties in peace and without excess stress.

Acknowledgements: None.

Conflict of interest: None to declare.

Contribution of individual authors:

Minò Maria Vincenza: design of the study, conception, preparation and writing of the manuscript;
Antonella Vacca: research;
Ivana Colizzi: research and to data acquisition;
Barbara Solomita: design of the study, bibliographic research;
Francesco Franza: design of the study, data analysis, contribution to bibliographic research;
Giuseppe Tavormina: research protocol and to the manuscript revision.

References

1. Auer S, Graessel E, Viereckl C, Kienberger U, Span E, Luttenberger K: Professional Care Team Burden (PCTB) scale – reliability, validity and factor analysis. *Health Qual Life Outcomes* 2015; 13:17
2. de Paiva LC, Canário ACG, de Paiva China ELC, Gonçalves AK: Burnout syndrome in health-care professionals in a university hospital. *Clinics (San Paulo)* 2017; 72:305-309
3. Figley CR: *Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder in Those who Treat the Traumatized*. Psychology Press, 1995
4. Figley CR: Compassion fatigue: psychotherapists' chronic lack of self care. *J Clin Psychol* 2002; 58:1433-41
5. Franza F, Del Buono G, Pellegrino F. Psychiatric caregiver stress: clinical implications of compassion fatigue. *Psichiatria Danub* 2015; 27(Suppl 1): S321-7
6. Franza F, Basta R, Pellegrino F, Solomita B, Fasano V: The role of fatigue of compassion, burnout and hopelessness in healthcare: experience in the time of COVID-19 outbreak. *Psichiatria Danub* 2020; 32(Suppl 1):10-14
7. Petrosyan Y, Sahakyan Y, Barnsley JM, Kuluski K, Liu B, Wodchis WP: Quality indicators for care of depression in primary care settings: a systematic review. *Syst Rev* 2017; 6:126. Epub 2017 Jul 3
8. Sargent C, Gebruers C, O'Mahony J: A review of the physiological and psychological health and wellbeing of naval service personnel and the modalities used for monitoring. *Mil Med Res* 2017; 4:1. Published online 2017 Jan 18
9. Schelvis RM, Wiezer NM, van der Beek AJ, Twisk JW, Bohlmeijer ET, Oude Hengel KM: The effect of an organizational level participatory intervention in secondary vocational education on work-related health outcomes: results of a controlled trial. *BMC Public Health* 2017; 17:141
10. Tavormina G, Tavormina MGM, Franza F et al.: A New Rating Scale (SAVE-9) to Demonstrate the Stress and Anxiety in the Healthcare Workers During the COVID-19 Viral Epidemic. *Psichiatria Danub* 2020; 32(Suppl 1):5-9
11. Veyssier-Belot C: Burnout syndrome among physicians. *Rev Med Interne* 2015; 36:233-6

Correspondence:

Maria Vincenza Minò, MD, Psychologist and constructivist psychotherapist
Psychiatric Rehabilitation Center "Don Tonino Bello" - Assoc. M.I.T.A.G. - Onlus
Via Venezia, 1, 72 019 San Vito dei Normanni, Brindisi, Italy
E-mail: marenza.m@virgilio.it