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Empathic communication as a “Risky strength” for health during the COVID-19 pandemic: The case of frontline Italian healthcare workers

The COVID-19 outbreak has been extraordinarily demanding for healthcare systems worldwide. During the first months of 2020, Italy has faced one of the heaviest outbreaks, with over 100179 confirmed cases and around 28884 deaths [1,2]. Furthermore the Italian healthcare system was on the verge of total collapse – at least in the regions most affected by the virus spread, such as Lombardy - and more than 4,500 healthcare professionals were infected as of April 30.

While specialized intensive care units in Italy were overwhelmed by the increasing number of cases, healthcare providers who did not have expertise in infectious disease treatment stepped up to provide care for patients with COVID-19 [1]. As the epidemic curve increased, many healthcare providers voluntarily joined the epidemic control efforts, and 1500 healthcare providers (including 300 physicians and 500 nurses) from across Italy voluntarily came to the most affected Italian regions to offer their support. Unanimous - across healthcare specialties - was their sense of responsibility to relieve patients and families’ suffering and the need to put coordinate efforts to safeguard the whole country from the virus spread.

In the face of this unpredictable disease and its related safety risks, healthcare providers feared infection and worried about their loved ones, but they still joined the institutional call to give their professional contribution to contain the epidemic and showed a limitless spirit of empathy. Finset and colleagues [3] suggested that this characteristic is expected to be a key factor in fighting the COVID-19 pandemic in order to guarantee the healthcare systems’ survival during and after this unprecedented healthcare crisis. Nonetheless, although empathy is essential in patient-doctor interactions, it might also be a challenging task for clinicians, often helped by mutual trust [3]. Indeed, the high exposure and involvement in emotionally distressing situations and the need to acknowledge patients and families’ negative emotions risk to drain healthcare providers’ psychological and physical resources with possible consequences on the long run [4,5].

The authors of this letter encourage to take into serious consideration the fact that, while some studies have shown that clinicians’ empathy positively impacts on quality of care, it should not be forgotten that more empathic clinicians might be at higher risk of distress [6]. We had proof of this phenomenon in a cross-sectional study that we recently conducted on 1150 Italian health professionals during the early outbreak of the COVID-19 Italian pandemic. Here, we summarize details of the 376 healthcare workers who directly assisted COVID-19 patients. They were invited to fill an online questionnaire including – in addition to information on demographic and professionals aspects - the following items: self-report items designed to assess healthcare professionals’ empathic attitude in terms of their perspective taking ability (e.g. item: A health care professional who is able to view things from another person’s perspective can provide patients’ with better care) and a list of psychosomatic symptoms adapted from the Copenhagen Psychosocial Questionnaire [7]. Table 1 describes more in details the sample characteristics. Results revealed that clinicians’ higher empathy exposed them to suffer from more psychosomatic symptoms as demonstrated by significant correlations between the average experience of symptoms and the Perspective Taking score ($r = .149$, $p = .008$). This finding might complement reflections by Finset and colleagues by adding knowledge about the implications of empathic communications for the clinicians’ wellbeing and demonstrates its possible “side effects” as a “risky strength” of health professionals.

The crucial role of healthcare providers in this unprecedented crisis is not in doubt; still healthcare professionals face great challenges and are at high risk of distress due to their empathic response. While attitude to empathy is an key personal feature of healthcare professionals and buffers the effects of burnout, it also seems to expose personnel to more frequent psychosomatic symptoms. Our study provides early insight into the psychophysical consequences that Italian healthcare workers are experiencing. This shows the need to supply them with “psychological self-protective equipment” capable of mitigating the massive impact of this emergency on their actual and future wellbeing [8,9]. Post-pandemic research has suggested to provide healthcare workers with psychological supports based on models of psychological adjustment and resilience. The efficacy of debriefing and psychological first aid, help-lines and support groups for professionals has also been documented. Healthcare institutions have ethical duties to reflect on the work-related stressors when the Covid-19 emergency will be over [10,11].

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Table 1
Sample characteristics.

| Personal characteristics                  | Professional characteristics                        |
|-------------------------------------------|---------------------------------------------------|
| Gender                                     | Length of work experience                         |
| Male                                      | Min n <1                                          |
| Female                                    | Max n 42                                          |
|                                           | Average (SD) n 15 (11)                            |
| Age                                       | Occupational role n                                |
| Min                                       | %                                                 |
| Max                                       | Nurse n 271                                       |
| Average (SD)                              | Physician n 67                                    |
|                                           | %                                                 |
| Marital status                            | Main work setting n                               |
| n                                         | %                                                 |
| Married/living together                   | Hospital unit n 307                               |
| Single                                    | %.                                                |
| Divorced/separated                        | Rehabilitation center n 6                         |
| Widow(er)                                 | Ambulatory n 3                                   |
| Other                                     | Private study n 1                                 |
|                                           | %                                                 |
|                                           | Other n 55                                        |
|                                           | 14.8                                              |
|                                           | Missing n 4                                       |
|                                           | 1.1                                               |

| Personal experience with COVID-19        | Professional experience with COVID-19             |
|------------------------------------------|--------------------------------------------------|
| Have you been tested for COVID-19?      | Do you work in an hospital with COVID-19 patients?|
| n                                        | n %                                              |
| No                                       | No n 49                                          |
| Yes                                      | Yes n 327                                        |
| I'd rather not answer                    | I'd rather not answer n 12                        |
| Missing                                  | Missing n 1                                      |
|                                           | 0.3                                              |
| Have you been quarantined?              | During your interaction with COVID-19 patients, were you wearing |
| n                                        | adequate PPEs (Personal Protective Equipment)?     |
| No                                       | n %                                              |
| Yes                                      | No n 35                                          |
| I'd rather not answer                    | Yes n 328                                        |
| Missing                                  | I'd rather not answer n 12                        |
|                                           | Missing n 1                                      |
|                                           | 0.3                                              |
| One of your families has been found      | How much are you concerned for the ongoing       |
| positive to COVID-19?                    | COVID-19 emergency situation?                    |
|                                           | Average score (SD) n 8.17 (1.53)                  |
| No                                       | Min score n 3                                    |
| Yes                                      | Max score n 10                                   |
| I'd rather not answer                    |                                                |
| Missing                                  |                                                |
|                                           |                                                |
| Empathy - Perspective taking             | Perceived impact on psycho- physical health       |
| Average score (SD)                       | Experienced symptoms in the last month (at least |
| n                                         | %                                                |
| Min score                                | Percentage of time I felt irritable n 221         |
| Max score                                | %                                                |
|                                           | Change in food habits n 209                       |
|                                           | %                                                |
|                                           | Difficulty falling asleep n 208                   |
|                                           | %                                                |
|                                           | Muscle tension n 182                             |
|                                           | %                                                |
|                                           | Exaggerated reactions to situations n 150        |
|                                           | %                                                |
|                                           | Nightmares n 150                                 |
|                                           | %                                                |
|                                           | Nervous breakdown n 142                          |
|                                           | %                                                |
|                                           | Increased sweating n 140                         |
|                                           | %                                                |
|                                           | Upset stomach n 140                             |
|                                           | %                                                |
|                                           | Gastro-intestinal problems n 139                 |
|                                           | %                                                |
|                                           | Palpitation n 112                                |
|                                           | %                                                |
|                                           | Experienced inexplicable physical sensations n 101|
|                                           | %                                                |
|                                           | Shortness of breath n 87                         |
|                                           | %                                                |
|                                           | Chest pain n 54                                  |
|                                           | %                                                |
|                                           | Vertigo n 43                                     |
|                                           | %                                                |

Contributors

All authors had full access to all the data in this study and take responsibility for the integrity of the data and the accuracy of the data analysis. SB and LP contributed equally and share the corresponding authorship. SB conceived of and designed the study. LP run the analysis. SB and GG supervised data collection and analysis. All authors contributed to reviewing and editing the manuscript.

Ethics committee approval

The study we mentioned in this letter receive the approval by the Ethic Commission of the Department Psychology of the Catholic University of Milan – Italy (IRB n°: 04.2020).

Declaration of Competing Interest

We declare no competing interests.

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References

[1] M. Nacoti, A. Ciocca, A. Giupponi, P. Brambillasca, F. Lussana, M. Pisano, G. Goiss, D. Bonacina, F. Fazzi, R. Naspro, L. Longhi, M. Cereda, C. Montagutti, At the epicenter of the Covid-19 pandemic and humanitarian crises in Italy: changing perspectives on preparation and mitigation, Catal. Non-Issue Content. 1 (2) (2020), doi: http://dx.doi.org/10.1056/CAT.20.0080.

[2] A. Remuzzi, G. Remuzzi, COVID-19 and Italy: what next? Lancet (2020), doi: http://dx.doi.org/10.1016/S0140-6736(20)30627-9.

[3] A. Finset, H. Bosworth, P. Butow, P. Gulbrandsen, R.L. Hulsman, A.H. Pieterse, R. Street, Effective health communication – a key factor in fighting the COVID-19 pandemic, Patient Educ. Couns. 103 (2020) 873–876.

[4] S. Barello, L. Palamenghi, G. Graffigna, Burnout and somatic symptoms among frontline healthcare professionals at the peak of the Italian COVID-19 pandemic, Psychiatry Res. 290 (2020)113129, doi: http://dx.doi.org/10.1016/j.psychres.2020.113129.

[5] S. Barello, G. Graffigna, Caring for health professionals in the COVID-19 pandemic emergency: toward an “epidemic of empathy” in healthcare, Front. Psychol. 11 (2020) 1431, doi:http://dx.doi.org/10.3389/fpsyg.2020.01431.

[6] F.B.M. de Waal, Putting the altruism back into altruism: the evolution of empathy, Annu. Rev. Psychol. (2008), doi:http://dx.doi.org/10.1146/annurev.psych.59.103006.093625.

[7] T.S. Kristensen, H. Hannerz, A. Hegh, V. Borg, The Copenhagen Psychosocial Questionnaire - A tool for the assessment and improvement of the psychosocial work environment, Scand. J. Work. Environ. Heal. (2005), doi: http://dx.doi.org/10.5271/sjweh.948.

[8] F. Anelli, G. Leoni, R. Monaco, C. Nume, R.C. Rossi, G. Marinoni, G. Spata, D. De Giorgi, L. Peccarisi, A. Miani, E. Burgio, I. Gentile, A. Colao, M. Triassi, P. Piscitelli, Italian doctors call for protecting healthcare workers and boosting community surveillance during covid-19 outbreak, BMJ (2020), doi:http://dx.doi.org/10.1136/bmj.m1254.

[9] A. Aiello, M. Young-Eun Khayeri, S. Raja, N. Peladeau, D. Romano, M. Leszcz, R.G. Maunder, M. Rose, M.A. Adam, C. Pain, A. Moore, D. Savage, R. Bernard Schulman, Resilience training for hospital workers in anticipation of an influenza pandemic, J. Contin. Educ. Health Prof. 31 (2011) 15–20, doi:http://dx.doi.org/10.1002/chp.20096.

[10] J. Fox, F. Burkle, J. Bass, F. Pia, J. Epstein, D. Markenson, The effectiveness of psychological first aid, Disaster Med. Public Health Prep. (2012), doi:http://dx.doi.org/10.1010/dmph.2012.39.

[11] R.G. Maunder, W.J. Lancee, R. Mae, L. Vincent, N. Peladeau, M.A. Beduz, J.J. Hunter, M. Leszcz, Computer-assisted resilience training to prepare healthcare workers for pandemic influenza: a randomized trial of the optimal dose of training, BMC Health Serv. Res. (2010), doi:http://dx.doi.org/10.1186/1472-6963-10-72.

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