

Social network characteristics and well-being in Italy: insights from the PHRASI Study

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Abstract

Background. Mental well-being should be prioritized in public health as it represents a valuable resource for individuals and communities, influencing behavior, social cohesion and social inclusion. The support individuals receive from their social networks can have a significant impact on mental well-being. This study used data from the Public Health Residents' Anonymous Survey in Italy, a nationwide cross-sectional survey. The objective was to assess the level of well-being among the Public Health Residents and investigate the association between the social network characteristics and the well-being in this population.

Study design. The current cross-sectional study targeted 1,600 public health residents enrolled in various Italian public health specialization schools between June 14 and July 26, 2022.

Methods. Participants self-reported both functional and structural characteristics of social network. Well-being was assessed using the WHO-5 well-being index. Linear regression models, adjusted for age and sex, were applied to examine the association between WHO-5 score and social network characteristics.

Results. Out of 379 participants, 51.5% reported bad well-being. Those with bad well-being are more likely women, experience lower peer-to-peer and supervisor support, face higher work-to-private life interference, and less frequently have a partner.

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Greater peer-to-peer support ($\beta=1.13$, 95% CI=0.68; 1.57), and increased supervisor support ($\beta=1.26$, 95% CI=0.86; 1.67), were associated with higher levels of well-being. Conversely, higher work-to-private life interference was associated with lower perceived well-being. Having a partner resulted in a better perceived well-being ($\beta=1.96$, 95% CI=0.94; 2.98). In logistic regression analysis, higher peer-to-peer support (OR=0.68, 95% CI = 0.55;0.85) greater supervisor support (OR=0.60, 95% CI=0.49;0.74) and having a partner (OR=0.51, 95% CI = 0.32;0.82) were associated with reduced odds of bad well-being. Conversely, increased WLI was associated with higher odds of bad well-being (OR=1.47, 95% CI = 1.19;1.82).

Conclusions. The characteristics of an individual's social network play a crucial role in her/his well-being and should be considered both in personal and professional contexts when aimed to enhance mental well-being in communities.

Introduction

The concept of well-being can be interpreted as “the balance point between an individual's resource pool and the challenges faced” (1). The World Health Organization (WHO) has provided a definition of well-being as “a positive state experienced by individuals and societies, determined by social, economic and environmental conditions” (2). Moreover, the WHO integrated well-being into the definition of health itself, characterizing health as “a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity” (2). Public health policies emphasize well-being as both a strategic priority and a desired outcome to achieve (3). Mental well-being is a valuable resource that has a significant impact on behavior, social cohesion and social inclusion of individuals, families, and communities (4). Well-being helps individuals pursue their goals, work productively and actively participate in their community's life (4). According to a meta-analysis of 35 studies conducted by Chida et al (5), positive psychological well-being can be associated with reduced mortality, suggesting that well-being has a beneficial effect on survival in both healthy and diseased populations.

In turn, well-being has been shown to be influenced by social network characteristics. Specifically, social support has been recognized as a vital resource for promoting well-being (6). Evans & Fisher (7), Gianfredi et al (8) and Fuller-Iglesias et al (9) identified significantly higher levels of anxiety and depression among socially isolated individuals, while social support played a protective role in mitigating anxiety and depression. On the other hand, support in the workplace, the organizational climate, social identity and organizational justice are factors that enhance the sense of well-being on the job (10). Stressful working conditions can influence employees' lifestyle behaviors, both indirectly by limiting their ability to make positive changes and directly contributing to choosing negative health behaviors

(11,12). In contrast, Rautenbach introduced a model called the “flourishing model”, which identifies factors that enable employees to “flourish” in the workplace (13). A positive social environment in the workplace is associated with improved workers' well-being and reduced psychological distress and depression (14,15). On the other hand, inadequate supervisory support and work-to-private-life interference have been linked to a range of wearing health outcomes, including depression, anxiety, emotional exhaustion, immune deficiency disorders, and cardiovascular disease (11,16).

The Covid-19 pandemic has significantly impacted healthcare workload. Worse mental health outcomes, such as depression, anxiety and burnout were found to have an increased incidence and to be related to demographic characteristics, contact with infected patients and poor perceived support (17). The growing body of evidence over recent years has underscored the imperative to recognize and urgently address the well-being of healthcare workers, emphasizing the need for proactive initiatives to promote their mental health, particularly among medical residents (18,19).

Public Health Medical Residents (PHMRs) constitute one of the youngest segments of healthcare workers and may also be among the most vulnerable, due to their engagement in both academic and field work, as well as their relatively young age (20). The literature recently identified some of the domains that have significantly contributed in determining a variation in the perceived well-being of medical residents (MRs) during Covid-19 pandemic. The amount of duty hours, the loss of training opportunities, the economic status, the type of medical specialization and the level of emotional intelligence are some of the characteristics that were found to be associated with MRs' well-being (21–24). Focusing on mental well-being, Steil et al. highlighted the significant impact of the Covid-19 pandemic on MRs' mental health, revealing a more than twofold increase in anxiety levels and a more than fourfold increase in the prevalence of severe

depression in this category during this challenging period (25). Understanding the relationship between social support both at home and in the workplace, and the psychological well-being of PHMRs is crucial for identifying areas for organizational interventions to improve their mental health and well-being. However, there exists a significant gap in scientific knowledge regarding this issue. Previous studies have primarily examined correlations between well-being and social networks in specific sub-populations, often focusing on elderly individuals or considered only a few social network characteristics, such as living alone (26–30). Instead, given the complexity of social networks and the multifactorial etiology of well-being, a multidimensional and comprehensive approach is needed. Therefore, to address this gap, we leveraged data from the “PHMRs Anonymous Survey in Italy” (PHRASI), a nationwide cross-sectional survey. Our study aimed to achieve the following objectives: 1) to estimate the level of well-being among the Italian PHMRs; 2) to explore the association between social network characteristics and well-being in our target population; and 3) to investigate whether depressive symptoms mediate the association between social network characteristics and well-being.

Materials and Methods

Study population and design

The PHRASI is a nation-wide cross-sectional study designed to investigate various dimensions of mental health and its determinants among Italian PHMRs.

Methodological details have been previously outlined (31). Briefly, it is a voluntary, anonymous, electronic survey developed on Google Form (©2022 Google, Mountain View, CA, USA) and addressed to all PHMRs (numbering approximately 1,600) enrolled in the four-year program of any of the Italian public health specialization schools. To ensure a complete data collection, the option for mandatory completion of all 88 items in the questionnaire was activated on Google Form. The survey link was disseminated through the mailing list of the PHMRs’ Assembly of the Italian Society of Hygiene and Preventive Medicine. In addition, to enhance the response rate, representatives from each public health specialization school were personally contacted and requested to disseminate the survey among their colleagues.

Data collection began on June 14, 2022 and concluded on July 26 of the same year. All data were stored in a computer database protected by a

password known only to the researchers. The sample size was determined based on a recent study that reported a prevalence of bad well-being in 58.6% of 10,013 Italian individuals during the four COVID-19 pandemic waves (32). Using the formula provided by Charan and Biswas (33), a sample size of 373 was calculated. Since the questionnaire responses were anonymous, making it impossible to identify the respondents, this study did not require approval of an ethics committee. The answers received were solely analyzed in aggregate form, in compliance with Italian and European laws governing the management of personal data (34–36). For the purpose of the current manuscript, socio-demographics data, information related to social networks characteristics, and data concerning well-being were used for the analysis.

Social network characteristics

Both functional and structural characteristics of social networks were assessed. In particular, among the functional characteristics of social network peer-to-peer support, supervisor support, and work-to-private life interference (WLI) were measured with a 5-point Likert scale, ranging from “never” (1 point) to “always” (5 points), through the following questions: “I can rely on the help of my colleagues”, “I can rely on the help of my boss”, “My work often interferes with my family, social or personal duties”, respectively.

The structural characteristics of social networks that were considered, included the distance between the residential and working regions, number of family members, living alone, and partner status. The distance between the residential and working regions was calculated by evaluating the distance between each region’s centroid (geographical centre) and the region where the PHMR resides. The distance between each centroid was calculated as the shortest distance between two points, according to the Vincenty method (37). The number of family members was calculated considering cohabitation, having a partner and number of children. Cohabitation was defined as a person who lived with someone (e.g., flatmate or partner) in their household, and having a partner was assessed by inquiring if the participant was in a stable relationship (yes/no).

Assessment of well-being

Well-being was assessed through the Italian versions of the WHO-5 well-being index (38,39). The WHO-5 index is a 5-item validated questionnaire designed to assess current mental well-being. Each

item is scored from 0 to 5 points. The crude score is calculated by summing the points for each question. The final score could range from 0 to 25, where 0 represents the worst and 25 represents the best well-being. It is allowed to express the score as percentages multiplying by four the crude score.

Statistical analysis

Continuous variables are presented as medians and interquartile ranges, while categorical variables are described as frequencies and percentages.

Collinearity among independent variables was assessed using Kendall's correlation test considering a strong correlation when Kendall's tau coefficient equals or exceeds 0.50.

Linear regressions, adjusted for age and sex, were performed with the WHO-5 score as the continuous dependent variable, considering all other independent variables. Additionally, 5 different linear regression models, adjusted for age and sex, were performed for each of the five items of WHO-5. Furthermore, we dichotomized the WHO-5 score in bad well-being and good well-being. Bad well-being was defined as a WHO-5 < 13 or having at least one "never" response

to any of the five items. Good well-being was defined as WHO-5 \geq 13. Therefore, a logistic regression, adjusted for age and sex, was conducted, using good well-being as reference.

Lastly, we hypothesized that the presence of depressive symptoms, investigated by the Patient Health Questionnaire-9 (PHQ-9), might mediate the relationship between each variable and well-being (40). Using linear regression models adjusted by sex and age, a mediation analysis was performed, examining the WHO-5 score, each variable, and PHQ-9 on a continuous scale. For all analyses, a significant level of alpha = 0.05 was considered.

Results

Among the 379 participants, 51,5% (n= 195) reported having bad well-being. In comparison to PHMRs with good well-being, those with bad well-being are more frequently women, have lower peer-to-peer and supervisor support, have higher work-to-private life interference, and less frequently have a partner (Table 1).

Table 1 - Characteristics of the sample, stratified by WHO-5 well-being index

Characteristic	Bad well-being (WHO-5 <13), N = 195	Good well-being (WHO-5 \geq 13), N = 184	p-value
Sex			0.032
Female	123 (63.08%)	96 (52.17%)	
Male	72 (36.92%)	88 (47.83%)	
Age	31.00 (29.00, 34.00)	30.00 (28.00, 33.25)	0.189
Distance	0.00 (0.00, 0.00)	0.00 (0.00, 213.99)	0.008
Family Members			0.310
Median (IQR)	2.00 (2.00, 2.00)	2.00 (2.00, 2.00)	
Peer to peer Support			0.002
Median (IQR)	4.00 (3.00, 5.00)	4.00 (4.00, 5.00)	
Supervisor Support			<0.001
Median (IQR)	3.00 (3.00, 4.00)	4.00 (3.00, 4.00)	
WLI			<0.001
Median (IQR)	3.00 (2.00, 4.00)	2.00 (2.00, 3.00)	
Having a partner			0.006
No	65 (33.33%)	38 (20.65%)	
Yes	130 (66.67%)	146 (79.35%)	
Cohabitation			0.401
Alone	54 (27.69%)	44 (23.91%)	
With Others	141 (72.31%)	140 (76.09%)	

IQR: interquartile range; WLI: work-to-private life interference; WHO-5: WHO-5 well-being index



Figure 1 - Collinearity analysis between each independent item.

As shown in Figure 1, multicollinearity analysis revealed no collinearity between the independent variables, except for the variables “having a partner” and “family members”. Excluding the associated pair, the others had a Kendall’s tau correlation coefficient lower than 0.50.

Social network characteristics and well-being

Table 2 summarizes the results of both the linear regression analysis and the logistic regression, with adjustments made for sex and age.

Considering the linear regression analysis, all the explored functional characteristics of social networks were significantly associated with well-being. In particular, more peer-to-peer support ($a\beta=1.13$, 95% CI=0.68; 1.57, p-value<0.001), and more supervisor support ($a\beta=1.26$, 95% CI=0.86; 1.67, p-value<0.001), were associated with higher well-being on a continuous scale. Conversely, higher WLI was associated with lower perceived well-being ($a\beta=-1.11$, 95% CI=-1.55; -0.67, p-value<0.001).

Considering the structural characteristics of social network, only having a partner ($a\beta=1.96$, 95% CI=0.94; 2.98, p-value<0.001) and cohabitation ($a\beta=1.44$, 95% CI=0.39;2.49, p-value=0.007) resulted to be related with a better perceived well-being.

Linear regression analysis between social network characteristics and each item of WHO-5 are shown in Supplementary Table 1. The results remained consistent, except for items 1 and 5, “I have felt cheerful and in good spirits” and “My daily life has been filled with things that interest me”, respectively,

for which also a higher number of family members was associated with greater well-being.

Considering the logistic regression analysis (WHO-5 < 13), all the functional characteristics of social networks were consistently found to be statistically associated with well-being. In details, more peer-to-peer support ($aOR=0.68$, 95% CI = 0.55;0.85, p-value=0.001), and more supervisor support ($aOR=0.60$, 95% CI=0.49;0.74, p-value<0.001) were associated with lower odds of bad well-being. On the contrary, higher WLI was associated with higher odds of bad well-being ($aOR=1.47$, 95%CI = 1.19;1.82, p-value<0.001). Among the structural characteristics of social networks, only having a partner ($aOR=0.51$, 95% CI = 0.32;0.82, p-value=0.005) was significantly associated with lower odds of bad well-being.

The mediation analysis using PHQ-9 showed significant mediation effects between perceived well-being, clinically relevant depressive symptoms and peer-to-peer support, supervisor support, WLI and having a partner (Table 3).

The total effect of peer-to-peer support was significant ($a\beta = 1.14$; CI = 0.70; 1.62) and could be broken down into a *direct effect* of the peer-to-peer support on well-being ($a\beta = 0.54$; CI = 0.19; 0.89) and an *indirect effect* through PHQ-9 score ($a\beta = 0.60$; CI = 0.30; 0.91). These findings suggest that PHQ-9 partially mediated the relationship between the peer-to-peer support and wellbeing, with the mediator accounting for 52.63% of the total effect. All the results are shown in Table 3 and Figure 2.

Table 2 - Linear regression and logistic regression analysis between WHO-5 well-being index and social network characteristics

Variable	WHO-5 on a continuous scale			Bad well-being (WHO-5 < 13)		
	aβ	95% CI	p-value	aOR	95% CI	p-value
Functional characteristics of social network						
Peer-to-peer Support	1.13	0.68; 1.57	<0.001	0.68	0.55; 0.85	0.001
Supervisor Support	1.26	0.86; 1.67	<0.001	0.60	0.49; 0.74	<0.001
WLI	-1.11	-1.55; -0.67	<0.001	1.47	1.19; 1.82	<0.001
Structural characteristics of social network						
Distance	0.00	0.00; 0.00	0.268	1.00	1.00; 1.00	0.051
Family Members	0.63	-0.03; 1.28	0.060	0.84	0.63; 1.12	0.233
Having a partner (ref = No)	1.96	0.94; 2.98	<0.001	0.51	0.32; 0.82	0.005
Cohabitation (ref = Alone)	1.44	0.39; 2.49	0.007	0.78	0.49; 1.24	0.292

β: beta coefficient; a: adjustment by sex and age; CI: Confidence interval; OR: odds ratio; PHQ-9: Patient health questionnaire - 9 items; ref: reference; WLI: work-to-private-life interference; WHO-5: WHO-5 well-being index

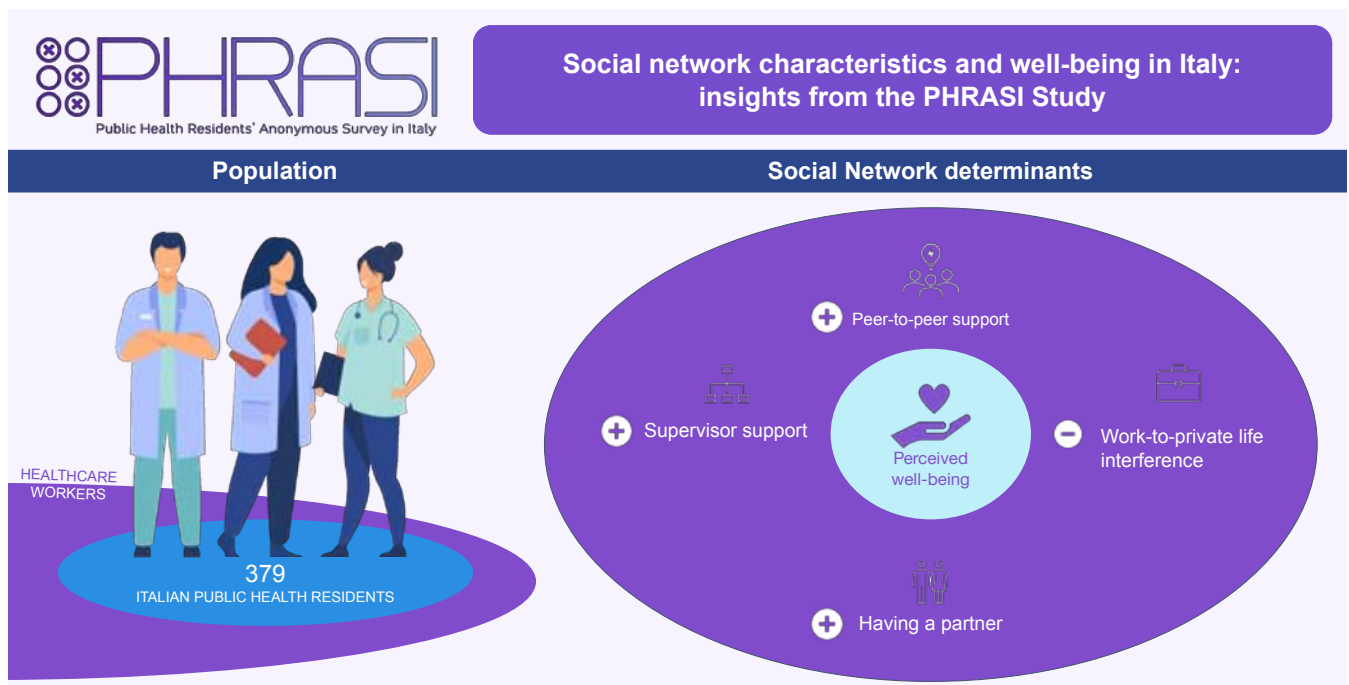


Figure 2 -

Table 3 - Mediation analysis between WHO-5, social network characteristics and PHQ-9

Variable	Total Effect aβ (95% CI)	Direct Effect aβ (95% CI)	Indirect Effect (PHQ-9) aβ (95% CI)	Proportion mediated (%)
Peer-to-peer support	1.14 (0.70; 1.62)	0.54 (0.19; 0.89)	0.60 (0.30; 0.91)	52.63%
Supervisor support	1.27 (0.85; 1.69)	0.58 (0.25; 0.91)	0.68 (0.42; 0.97)	53.54%
WLI	-1.12 (-1.56; -0.63)	-0.39 (-0.73; -0.04)	-0.73 (-1.05; -0.43)	65,18%
Having a partner	1.93 (0.93; 3.03)	1.14 (0.41; 1.91)	0.80 (0.12; 1.47)	41,45%

β: beta coefficient; a: adjustment by sex and age; CI: Confident interval; PHQ-9: Patient health questionnaire - 9 items; WLI: work-to-private-life interference; WHO: WHO-5 well-being index

Discussion

Our study evaluates the well-being of PHMRs, a population of young healthcare workers, in a period of great pressure and social challenges due to the Covid-19 pandemic. The results show that approximately half of the sample experienced good well-being. This result serves as an important indicator, not only because well-being is closely linked to improved bio-psycho-social health but also because the residents' category represents the future generation of physicians whose well-being is essential to ensure their capacity to provide care to the population.

Moreover, our results show a strong association between well-being and both peer-to-peer, and supervisor support. Receiving support at work is important for facilitating one's professional responsibilities with greater ease and confidence. Furthermore, work-to-private-life interference has been identified as a risk factor, related to a reduction in the well-being of PHMRs. Existing literature has examined work-related sources of social support and their impacts on work-related health and well-being, encompassing aspects such as job stress, job satisfaction, job performance, turnover intention, or work-family conflict (41–49). These studies show that social support at work primarily originates from supervisors or colleagues. Perceived supervisor support has been found to be positively associated with job satisfaction (41,44), and negatively and strongly correlated with emotional exhaustion (44), burnout (42), anxiety, psychological tension (43), and turnover intention (41). Support is considered a positive element in all professions, even more so in the health-care sector, where teamwork is fundamental (50). This holds even more true for residents, who need guidance as they embark on their professional adventure. Moreover, during the Covid-19 pandemic, periods of lockdown made work colleagues the only individuals, apart from close family members, with whom trainees could interface in person, which may have increased the role of social support at work (51). On the other hand, the substantial workload resulting from the pandemic might have impacted on the work-to-private-life interference, associated with bad well-being in our sample. Conflicting situations, especially those involving areas of life that people strongly identify with, tend to increase stress levels and consequently undermine their well-being (52). Our study demonstrates that this effect is particularly pronounced among residents in the early stage of their career, often while also in the process of starting a

family. For them, achieving a balance between home and work is a fundamental element upon which to establish a sense of security and well-being.

The results of our study also show a significant relation between having a stable relationship and well-being. Several studies demonstrate the importance of a stable relationship in promoting overall well-being and a better physical and mental health (53,54). For example, a study by Musick and Bumpass, which followed 2,737 single individuals over a period of 6 years, assessing their health, happiness, self-esteem and depression, found that in the 896 individuals who either got married or started living together, there was a general improvement in well-being (55). Also in this case, the Covid-19 pandemic may have intensified this effect, as the presence of a stable relationship during moments of difficulty and social isolation could have been a source of support for those who had it.

In our study, the number of family members did not significantly correlate with overall well-being. This observation may be related to the fact that a large family, even if supportive, can entail significant burdens and responsibilities, potentially serving as a source of stress (56). Moreover, family life became more complex during the pandemic, especially during lockdown periods, when external social interactions and alternative places to frequent were limited (57,58). However, the results of the item-by-item linear regression demonstrate that the number of family members correlates with specific dimensions of well-being. In particular, family size is associated with feeling cheerful and perceiving a fulfilled life, while it is not statistically associated with feeling of relaxation, energy and restfulness. These results are consistent with sector studies which show that having a family, especially with young children, leads to greater tiredness and stress but at the same time also leads to a feeling of completeness, fullness of life and contentment (59).

The mediation analysis conducted in this study also highlighted how the presence of clinically relevant depressive symptoms constitutes a mediator between the elements of social support and the well-being of the PHRs. This part of the improvement in well-being related to social support can be explained in terms of fewer depressive symptoms and vice versa. Among others, Sinokki et al., in their cross-sectional study found that lack of social support, especially at work and from one's supervisor, was associated with mental health problems, e.g., depressive or anxiety disorders (60), or sleep problems, including fatigue and insomnia (61). The correlation between a socially unfavorable

work environment, depression and poor well-being is also underlined by our results, further demonstrating the negative effects concerning mental health, deriving from an unsupportive work environment.

Limitations and strengths

Some limitations of the study need to be taken into consideration. We based our survey on self-reported measures, not clinically-based diagnoses: thus, mismatches between the actual values and participants' self-reported ones could exist. However, the WHO-5 is a valid instrument for evaluating well-being.

Furthermore, even though researchers explicitly guaranteed the data anonymity, there is a chance that respondents may have fudged their answers due to fear of identification, or because of social-desirability bias; resulting in an underestimation of the results. All responders were medical doctors, and being proficient in the matter, they were more likely to alter their responses to give a good impression of themselves, according to social norms (62–64). As the questionnaire was disseminated through the PHMRs' Assembly network, isolated residents were more likely to have missed the questionnaire or been less motivated to complete it. This would underestimate the association between poor well-being and social support.

This is a cross-sectional study thus, exposure and outcome data were measured simultaneously: this did not allow us to evaluate the incidence, temporality, or causality of mental health features, nevertheless, our results should be considered preliminary but prominent in light of the paucity of existing literature on this topic.

A significant strength of the study is the representative and large sample size (65): our survey achieved a high participation rate nationwide, with almost the same distribution among the northern, central, and southern regions. Moreover, the cross-sectional design allowed us to collect valuable data in a cheap manner and in a short period, without missing data. Finally, we performed a mediation analysis to evaluate whether depressive symptoms mediated the relationships between each independent variable and the well-being. In general, mediation analysis decomposes the total effect between the predictor and the outcome into a direct and an indirect effect through a mediator variable. The added value is that this analysis removes the possible confounding that might be dictated by the depression's influence on

well-being.

Implications for Policy, Practice and Research

Overall, the results of our study show how much the social, family and work network is fundamental in determining the well-being of doctors in training, which reverberates in a state of psychological and physical health and also in better work performance and in higher quality assistance to the population. When considering public health and preventive strategies, this study suggests the importance of implementing projects for monitoring, improving and protecting the working environment, guaranteeing the support of workers and encouraging ways of work to private life reconciliation for the well-being and health of doctors and of the whole community. This is particularly true when considering the impact that the Covid-19 pandemic had among general public and healthcare workers in particular, on both physical and mental health. A recent systematic review and meta-analysis conducted by Li et al., which included 65 studies, involving 97,333 health care workers in 21 countries, revealed a high prevalence of moderate depression (21.7%), anxiety (22.1%), and Post Traumatic Stress Disorders (21.5%) among healthcare workers during the Covid-19 pandemic (66).

In light of the above findings, it is crucial to enhance the accessibility of mental health services and promote well-being in the workplace would provide real improvements in residents' mental health outcomes. Given the quality of care is linked to the mental state of health workers, this will consequently increase healthcare performance. Nevertheless, it is essential to acknowledge that mental health services are often under-resourced, compared to other healthcare services, necessitating a significant financial investment in this area. Stigmatizing attitudes towards mental disorders and barriers to seeking help remain within the medical profession, as also evidenced by a UK survey (67). Therefore, there is a pressing need to promote health services tailored to doctors' mental health, emphasizing the importance of psychological support and treatment, including teleassistance where required, as well as providing opportunities for healthcare workers to share and compare their experiences with colleagues. In this perspective, the Mental Health Foundation defined a list of key actions for all professionals working in public health in order to promote mental well-being and prevent mental health problems. These actions include: ensuring mental health receives the same priority as physical health, considering family

relationships as determinants for people's mental health and well-being, organizing interventions in schools, workplaces and communities, increasing mental health and well-being literacy across the whole population (68).

Regarding public policies, our findings highlight the importance of social support in the workplace for healthcare professionals. Effective teamwork is well-established in reducing medical errors, enhancing patient safety, improving mortality rates, and leading to better outcomes for staff, including reduced stress and increased job satisfaction (69). Given this, interventions aimed at improving teamwork are particularly. Team-building activities that foster interdependence, communication and trust are particularly needed. Implementing enhanced communication systems, such as regular team meetings and the use of technology to facilitate real-time sharing of patient information. Effective conflict management techniques are also essential to encourage open communication and healthy resolution of disagreements. By focusing on these strategies, healthcare teams can work more cohesively and effectively to improve patient care.

Further studies need to be carried out to identify the specific variables that affect the mental well-being of healthcare workers, the unique characteristics of mental health issues among those in the healthcare sector, and the most effective interventions to enhance their mental health. Only by filling this gap in knowledge future interventions can be precisely tailored and adapted to the needs of healthcare workers.

Conclusions

In conclusion, we show that both functional characteristics, in particular more peer-to-peer support and supervisor support, as well as structural social network characteristics, especially having a partner and cohabitation, are associated with better well-being among PHMRs. Conversely, higher work-to-private interference life was associated with bad well-being in this group. These findings indicate the significance of social network characteristics in relation to well-being and emphasize the need to consider them at both personal and professional levels.

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Riassunto

Caratteristiche della rete sociale e benessere in Italia: risultati dallo studio PHRASI

Background. La salute mentale dovrebbe essere un argomento prioritario nell'ambito della Salute Pubblica, in quanto rappresenta una risorsa preziosa per gli individui e le comunità, influenzando il comportamento, la coesione e l'inclusione sociale. Il sostegno che gli individui ricevono dalle loro connessioni sociali può avere un impatto significativo sulla salute mentale. Questo studio ha utilizzato i dati del questionario anonimo sottoposto agli specializzandi in Igiene e Medicina Preventiva in Italia, un'indagine trasversale a livello nazionale. L'obiettivo era quello di valutare il livello di benessere degli specializzandi in Igiene e Medicina Preventiva e di indagare l'associazione tra le caratteristiche delle connessioni sociali e il benessere in questa popolazione.

Disegno dello studio. L'indagine trasversale si è rivolta a 1600 specializzandi in Igiene e Medicina Preventiva iscritti a diverse scuole di specializzazione in sanità pubblica italiane tra il 14 giugno e il 26 luglio 2022.

Metodi. I partecipanti hanno auto-riferito le caratteristiche funzionali e strutturali della rete sociale. Il benessere è stato valutato utilizzando l'indice di benessere WHO-5. Sono stati eseguiti mo-

delli di regressione lineare, aggiustati per età e sesso, per esaminare l'associazione tra il punteggio WHO-5 e le caratteristiche della rete sociale.

Risultati. Su 379 partecipanti, il 51,5% ha riferito un cattivo stato di benessere. I soggetti con un cattivo stato di benessere erano più spesso donne, godevano di un minore sostegno da parte dei colleghi e dei supervisori, dovevano affrontare una maggiore interferenza tra lavoro e vita privata e avevano meno frequentemente un partner. Un maggiore supporto tra pari ($\beta=1,13$, 95%CI=0,68; 1,57) e un maggiore supporto da parte del supervisore ($\beta=1,26$, 95%CI=0,86; 1,67) erano associati a livelli più elevati di benessere. Al contrario, una più elevata interferenza tra lavoro e vita privata è stata associata a un minore benessere percepito. Avere un partner ha portato a una migliore percezione del benessere ($\beta=1,96$, 95%CI=0,94; 2,98). Nell'analisi di regressione logistica, un maggiore supporto tra pari (OR=0,68, 95%CI = 0,55;0,85), un maggiore supporto da parte del supervisore (OR=0,60, 95%CI=0,49;0,74) e il fatto di avere un partner (OR=0,51, 95%CI = 0,32;0,82) erano associati a una riduzione delle probabilità di un cattivo benessere. Al contrario, un aumento dell' interferenza tra lavoro e vita privata è stata associata a maggiori probabilità di un cattivo stato di benessere (OR=1,47, 95%CI = 1,19;1,82).

Conclusioni. Le caratteristiche della rete sociale di un individuo giocano un ruolo cruciale nel suo benessere e dovrebbero essere considerate sia in contesti personali che professionali quando si mira a migliorare il benessere mentale nelle comunità.

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