

LEVEL OF KNOWLEDGE IN PALLIATIVE CARE, PREPARATION AND CAPACITY TO PROVIDE CARE AT THE END OF LIFE BY HEALTH PROFESSIONALS

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Abstract

The predominance of slowly evolving chronic-degenerative diseases, resulting from the progressive aging of the population, has increased the need for the provision of palliative care (PC). In this context, there is an interest in evaluating the skills and abilities of health professionals. The present study aims to identify the level of: knowledge in PC, spirituality, self-efficacy and ability to provide end-of-life care (CFV) by doctors and nurses working in a hospital center. We also seek to understand the academic and clinical trajectory in learning and training in PC and discuss the inclusion of educational programs in this area.

This is a quantitative, observational and cross-sectional study applied to doctors and nurses working in a hospital center, with contact with patients at the end of life. The

data collection instrument included a questionnaire administered between May and July 2022. The variables were evaluated using IBM SPSS for Windows (V.26).

As a result, we observed that doctors and nurses (n=380) have medium to low levels of knowledge in PC. Perceptions of spirituality, emotional intelligence, self-efficacy and preparation and ability to provide CFV revealed a moderate overall mean value. Most professionals do not have training or experience in CP.

The levels of perception of emotional intelligence, self-efficacy and ability to provide CFV by health professionals are average. Knowledge in CP is low, because they are unaware of some of the principles. It is suggested that a subject on PC be included as a mandatory subject in higher education health courses.

Keywords: end-of-life care; self-efficacy; spirituality; knowledge; emotional intelligence.

Introduction

The increase in life expectancy has led to an increase in the number of people with chronic, progressive diseases, with high rates of morbidity or advanced-stage diseases requiring palliative care (PC) (Spengler, 2015). Annually, more than 40 million people worldwide need PCs, and this number will tend to increase, as it is estimated that in 2050, the number of people over 60 will double (Glasdam et al., 2020). On the other hand, the pandemic due to COVID-19 increased the need for PCs (Neto et al., 2021). Given the arguments, it is easy to infer that healthcare professionals will be required to have more excellent knowledge and competence in PC to obtain quality care and assistance for people.

Current studies suggest that newly qualified doctors and nurses are ill-prepared to practice end-of-life (EOL) care and do not feel capable of providing this care (Smets et al., 2018). The level of knowledge of PC of health professionals has been identified as low up average (Diogo, 2018; Dixe et al., 2020). Professionals lack training and preparation to work appropriately in this area (Diogo, 2018; Dixe et al., 2020; Oliveira et al., 2021). Global interest in EOL care has grown for demographic and epidemiological reasons (Pawlow et al., 2018). Thus, providing high-quality care at the EOL has been a topic of priority analysis on international research agendas (Karbasi et al., 2018; Khan et al., 2021; Zheng et al., 2018). However, recent studies (Elyn et al., 2019; May &

Scammell, 2020) reveal that many health institutions cannot effectively manage the symptom burden that occurs at the EOL.

A better understanding of the impact of some variables on the preparation and ability to provide EOL care can allow overcoming barriers and optimizing EOL care (Becker et al., 2017). There are studies in the literature on the ability of health professionals to provide EOL care and its predecessor variables (Kerr, 2021; Todaro-Franceschi, 2013). However, research on this topic is very scarce, partly due to the almost non-existent scales that assess these variables. From a correlational perspective, the proposed research aims to understand the links between some antecedents of (doctors and nurses') preparation and ability to provide EOL care and certain profile variables.

Specifically, this study has two objectives: 1) To know the perceptions of doctors and nurses about the concepts of spirituality, emotional intelligence, self-efficacy, PC knowledge, attitudes toward EOL care, and the preparation and ability to provide EOL care, determining their degree/level; and 2) To correlate the concepts under study and analyze the existence of differences in doctors and nurses' perceptions of these concepts, depending on certain sociodemographic and professional variables. The understanding these correlations can be essential to defining factors that inhibit or enhance the preparation and capacity of health professionals to provide care in the last hours or days of people's lives.

Methods

The present study has an exploratory, descriptive, cross-sectional and quantitative approach. It is part of a project approved by the Ethics Committee of the health institution where the study took place. The population comprised doctors and nurses working in a Portuguese public hospital who had contact with patients at the end of their lives. Data were collected during May and July 2022 using a questionnaire created by the authors based on instruments from the literature. Due to cost and time constraints, the sample (N=380) was based on the non-probability method. Descriptive and correlational analyses were conducted using SPSS software (V.26 for Windows®). The following statistical tests were used to analyze the significance of the constructs' associations with the respondents' profile variables: Student's t-test (comparison of quantitative variables between two independent groups); ANOVA, Pearson's

Correlation Coefficient (correlation between two quantitative variables). The statistical significance of the data was assessed at $p < 0.05$.

Instruments

Exception for spirituality, all variables were measured on a five-point Likert scale, from the position: 1-totally disagree; 2-I partially disagree; 3-I neither agree nor disagree; 4-I partially agree, and 5-I completely agree. Self-efficacy and PC knowledge were measured according to the Bonn Palliative Care Knowledge Test (BPW), adapted and validated for the Portuguese population (Minosso et al., 2017). The perception of preparation and capacity to provide EOL care was assessed using the PPACD R-I scale (Todaro-Franceschi, 2013). Spirituality was monitored by Hodge (2003) scale, emotional intelligence by Wong and Law (2002) scale and attitudes toward EOL care using the Bradley (2000) scale.

Results

Sample characterization (n=380)

The sample consists of 380 health professionals who responded to the questionnaire wholly and assertively. Table 1 shows data relating to the main sociodemographic characteristics. The average age is 37.38 years (± 9.93 years). The youngest health professional is 22 years old, and the oldest is 65. Most are between 30 and 44 years old (53.95%) and have between 0 and 44 years of professional experience ($M = 14.11$; $SD = 10.17$). Regarding gender, this is an unbalanced sample, with a high percentage of female members (82.11%). The predominant professional group is the nursing (79.47%). Most respondents are married or have a civil partnership (56.32%). Concerning educational qualifications, 45.79% of professionals have postgraduate or master's degrees. Only 24.21% have work experience in the PC, and just 21.58% have some training in this area.

Descriptive analysis of variables: spirituality, emotional intelligence, knowledge of PC, self-efficacy, attitudes toward EOL care, preparation and ability to provide EOL care

Regarding the assessment of emotional intelligence (Table 2), the dimension "Assessment of one's own emotions" was the one that most contributed to the average result obtained of 3.88 ($SD = 0.83$), showing that the responding professionals have

moderate to high levels of emotional intelligence. On the other hand, the dimension with the lowest value is referred to as the “*Regulation of emotions*” (3.53 ± 0.87). For the self-efficacy variable, the responses indicate an average value of 3.90 ± 0.82 . Considering this value, a high degree of self-efficacy is observed in health professionals. The doctors and nurses are generally moderately prepared for EOL attitudes (3.51 ± 1.14). According to Table 2, health professionals who participated in this study have moderate levels of spirituality (5.06 ± 2.30). Carrying out a global analysis of the PC knowledge assessment scale, an average value of 2.52 ± 0.74 was obtained. This value suggests that the respondents reveal a low level of knowledge of PCs. For the scale of perception of preparation and ability to provide EOL care, the value of 3.25 ± 0.95 reveals that professionals are moderately prepared and qualified.

Association of the variables with sociodemographic and professional characteristics

According to the results in Table 3, there are statistically significant differences ($p < 0.05$) between nurses and doctors in spirituality, self-efficacy, ability to provide EOL care and knowledge of PC, with nurses presenting higher rates. Except for attitudes toward EOL care in which doctors stand out positively.

Self-efficacy is significantly lower ($p < 0.05$) in single professionals and employees with no PC experience or training. The results also show that self-efficacy increases ($p < 0.001$) with age, work time, experience and training in PC. Regarding the perception of the ability to provide EOL care, this is higher among divorced professionals with experience and training in PC. It should also be added that there is a positive and weak correlation between age ($R=0.161$; $p < 0.001$) and working time ($R=0.158$; $p < 0.002$). About spirituality, there is a statistically significant relationship with gender, being greater in females ($p=0.002$), with age (positive correlation, $R=0.042$; $p < 0.001$), experience ($p=0.002$) and training in PC ($p=0.015$). Emotional intelligence increases slightly with increasing ($p < 0.001$) age and with increasing working time and PC working. Regarding the attitudes toward EOL care, there is a positive association ($p < 0.001$) between the education degree, age, working time and PC working.

To conclude, PC knowledge is higher in nurses than doctors ($p < 0.001$) and in professionals with postgraduate/master's, working and training in PC.

Discussion

The measured perceptions of emotional intelligence, self-efficacy, attitudes toward EOL care and preparation and capacity to provide EOL care revealed a moderate overall average value and can be the target of improvements through internal training plans, institutional debates on the theme and adoption of an information sharing policy. These results are following literature data (Choi & Yu, 2022; Park & Jeong, 2021; Wang et al., 2022). Regarding spirituality, the global mean of the scale indicated a median value of 5.06 ± 2.30 . This result does not reflect existing data in the literature that indicate substantially higher values: 7.05 ± 2.08 (Caton, 2021) and 7.18 ± 2.40 (Fradelos et al., 2022). To communicate effectively with healthcare professionals, they must understand how a person's spirituality and culture affect their perceptions of health and illness, particularly their desires regarding EOL care. This result reinforces the importance of including topics on spirituality in training programs for doctors and nurses. The level of PC knowledge obtained in this study had a low overall average value of 2.52 ± 0.74 , which validates other existing studies: 2.34 ± 0.57 (Etafa et al., 2020) and 2.23 ± 0.23 (Menekli et al., 2021). This result was expected because most of the sample had no training or work experience in PC service.

Self-efficacy increases slightly with increasing age and time working. For these results, we found scientific validation (Ferreira, 2020; Madeira, 2021), highlighting the increase in age and accumulated life experience in personal and work contexts to increase confidence and the ability to manage problems. Previous training in PC and professional experience in this area are also related to greater self-efficacy for the reasons already mentioned.

The perception of the ability to provide EOL care was higher among professionals with more education, experience, and training in PC, and it is more significant in age and working time. The literature regarding this variable is very scarce. However, preliminary studies indicate that training and education in PC increase the perception of the ability to provide EOL care (Kerr, 2021) and the working time is also reflected in an improvement in care provision (Todaro-Franceschi, 2013). Given the above, one of the essential measures to increase professionals' ability to provide EOL care will be offering training programs, which can ideally be provided within healthcare organizations.

Regarding spirituality, a statistically significant relationship was found with the female sex, experience and training in PC, and a positive linear correlation with age. The literature indicates that spirituality is strongly linked to age and gender (Koteneva et al., 2021; MahdiNejad et al., 2021; Nidhi, 2022). The spiritual dimension assumes its fullness at more advanced ages, with females being more oriented toward existential issues. Therefore, the teams should have a heterogeneous group of professionals in their composition so that seniors can guide younger ones.

Emotional intelligence increases with increasing age, working time and experience in PC. Several studies point to a positive correlation between emotional intelligence, age (FakhrEldin, 2017; García-Tudela & Marín-Sánchez, 2021), and professional experience (Park & Oh, 2019). This premise has been adopted in health services with the appointment of the shift manager as the most senior member of the profession. The existence of professionals with high levels of emotional intelligence may provide more compassionate and empathetic care (Aliabadi et al., 2021), better communication skills (Lampreia-Raposo et al., 2022), and moderate levels of stress (Encarnação et al., 2018). This constitutes evidence of the need for continued and sustainable education in clinical environments to improve professionals' ability to understand their own emotions and the emotions of others and also to control and use emotions.

The assessment of health professionals' attitudes toward EOL care revealed a higher score (3.51 ± 1.14) translating into a positive attitude. In the current literature, the values found are variables: 4.26 ± 0.63 (Ho et al., 2022); 3.63 ± 0.34 (Park & Jeong, 2021); 2.91 ± 0.18 (Chu & Jang, 2021); 3.46 ± 0.26 (Park & Oh, 2019). Recent literature indicates that doctors recognize that patients have the right to make decisions about their health and the treatments offered, and geriatric patients should be included in the discussion of EOL care, highlighting the ethical principle of autonomy (Salabarría-Peña et al., 2022).

To conclude, regarding PCs' knowledge, we note that this is higher in professionals with a doctorate or postgraduate/master's degree, with training or experience in PC and among nurses. This result was expected since knowledge acquisition is obtained through study, training and education. Healthcare professionals who receive training on EOL care topics can better deal with a patient's terminal situation or death and are consequently reported to provide EOL care quality (Zheng et al., 2018). However, health professionals often report gaps in their knowledge, skills, and support.

Limitations

A limitation of this investigation is its cross-sectional design, which does not allow the study of the behavior of variables over time. Since emotional experiences are transient, a one-time assessment cannot capture personal fluctuations in employees' daily emotional experiences. Thus, future studies could use a longitudinal design and a day-to-day approach to capture affective experiences at work more accurately. On the other hand, the study was conducted based on a convenience sample based on the perceptions of professionals from a single organization, preventing us from generalizing the results. All variables under analysis were measured from the perceptions of the same key informant, so there are risks associated with the variance of the common method.

Conclusion

The association of variables with sociodemographic and professional characteristics allows us to state that more experienced professionals must integrate health professionals who enter PC units, as they have more theoretical knowledge and technical skills, are more resilient and have higher levels of emotional intelligence, self-efficacy and spirituality.

Overall, this study has a vital role for policymakers and decision-making entities in the health sector concerning the strategic planning of PC but also at the level of society in general because improving the provision of EOL care by healthcare professionals will be a collective benefit, which we can all benefit from in the future.

Bibliographic references

- Aliabadi, P. K., Zazoly, A. Z., Sohrab, M., Neyestani, F., Nazari, N., Mousavi, S. H., Fallah, A., Youneszadeh, M., Ghasemiyan, M., & Ferdowsi, M. (2021). The role of spiritual intelligence in predicting the empathy levels of nurses with COVID-19 patients. *Archives of Psychiatric Nursing*, 35(6), 658–663. <https://doi.org/10.1016/j.apnu.2021.10.007>
- Becker, C. A., Wright, G., & Schmit, K. (2017). Perceptions of dying well and distressing death by acute care nurses. *Applied Nursing Research*, 33, 149–154. <https://doi.org/10.1016/j.apnr.2016.11.006>
- Bradley, E. (2000). Attitudes About Care at the End of Life Among Clinicians : A Quick ,

- Reliable , and Valid Assessment. *Journal of Palliative Care*, 16(1), 6–14.
- Caton, M. T. (2021). The impact of spirituality, social support, and self-esteem on the resilience of Haitian nurses: Implications for nursing education. *Archives of Psychiatric Nursing*, 35(2), 206–212. <https://doi.org/10.1016/j.apnu.2020.08.006>
- Choi, E., & Yu, S. (2022). Effects of preceptors' mentoring function on novice nurses' self-efficacy and organizational commitment: A cross-sectional study. *Nurse Education in Practice*, 64, 103431. <https://doi.org/10.1016/j.nepr.2022.103431>
- Chu, E., & Jang, S. (2021). The Effects of a Death Preparation Education Program on Death Anxiety, Death Attitudes, and Attitudes toward End-of-Life Care among Nurses in Convalescent Hospitals. *The Korean Journal of Hospice and Palliative Care*, 24(3), 154–164. <https://doi.org/10.14475/jhpc.2021.24.3.154>
- Diogo, A. (2018). *Dissertação de Mestrado. Avaliação dos conhecimentos dos enfermeiros Região Autónoma dos Açores*. Faculdade de Medicina de Lisboa.
- Dixe, M. dos A., Santo, I. D. de O., Lopes, S., Catarino, H., Duarte, S., Querido, A., & Laranjeira, C. (2020). Knowledge and myths about palliative care among the general public and health care professionals in Portugal. *International Journal of Environmental Research and Public Health*, 17(13), 1–12. <https://doi.org/10.3390/ijerph17134630>
- Elyn, A., Sourdet, S., Morin, L., Nourhashemi, F., Saffon, N., de Souto Barreto, P., & Rolland, Y. (2019). End of life care practice and symptom management outcomes of nursing home residents with dementia: secondary analyses of IQUARE trial. *European Geriatric Medicine*, 10(6), 947–955. <https://doi.org/10.1007/s41999-019-00234-9>
- Encarnação, R. M. C., Soares, E. M. da C., & Faria de Carvalho, A. L. R. (2018). Emotional intelligence: influencing factors and impact on nurses in intensive care. *Revista Da Rede de Enfermagem Do Nordeste*, 19, e33229. <https://doi.org/10.15253/2175-6783.20181933229>
- Etafa, W., Wakuma, B., Fetensa, G., Tsegaye, R., Abdisa, E., Oluma, A., Tolossa, T., Mulisa, D., & Takele, T. (2020). Nurses' knowledge about palliative care and attitude towards end- of-life care in public hospitals in Wollega zones: A multicenter cross-sectional study. *PLOS ONE*, 15(10), e0238357.

<https://doi.org/10.1371/journal.pone.0238357>

- FakhrEldin, H. (2017). The relationship between the emotional intelligence of entrepreneurs and the new venture creation: The role of age, gender and motive. *Arab Economic and Business Journal*, 12(2), 99–108. <https://doi.org/10.1016/j.aebj.2017.10.002>
- Ferreira, A. J. B. (2020). *A relação da Experiência Profissional e a percepção de autoeficácia docente para a Educação Inclusiva de Alunos Estrangeiros*. Instituto Superior Técnico de Lisboa.
- Fradelos, E., Alexandropoulou, C.-A., Kontopoulou, L., Papathanasiou, I. V., & Tzavella, F. (2022). Factors Affecting Greek Nurses' Caring Behaviors: The Role of Nurses' Spirituality and the Spiritual Climate of Hospitals. *Journal of Religion and Health*, 61(3), 1816–1830. <https://doi.org/10.1007/s10943-022-01503-x>
- García-Tudela, P. A., & Marín-Sánchez, P. (2021). Educación de la inteligencia emocional en edad escolar: Un estudio exploratorio desde la perspectiva docente. *Revista Electrónica Educare*, 25(3), 1–21. <https://doi.org/10.15359/ree.25-3.6>
- Glasdam, S., Ekstrand, F., Rosberg, M., & van der Schaaf, A. M. (2020). A gap between the philosophy and the practice of palliative healthcare: sociological perspectives on the practice of nurses in specialised palliative homecare. *Medicine, Health Care and Philosophy*, 23(1), 141–152. <https://doi.org/10.1007/s11019-019-09918-2>
- Ho, M.-H., Liu, H.-C., Joo, J. Y., Lee, J. J., & Liu, M. F. (2022). Critical care nurses' knowledge and attitudes and their perspectives toward promoting advance directives and end-of-life care. *BMC Nursing*, 21(1), 278. <https://doi.org/10.1186/s12912-022-01066-y>
- Hodge, D. R. (2003). The Intrinsic Spirituality Scale. *Journal of Social Service Research*, 30(1), 41–61. https://doi.org/10.1300/J079v30n01_03
- Karbasi, C., Pacheco, E., Bull, C., Evanson, A., & Chaboyer, W. (2018). Registered nurses' provision of end-of-life care to hospitalised adults: A mixed studies review. *Nurse Education Today*, 71, 60–74. <https://doi.org/10.1016/j.nedt.2018.09.007>
- Kerr, D. (2021). Effects of Palliative Care on Nurses' Knowledge and Attitudes. *MSN Capstone Projects, Paper 103*. <http://hdl.handle.net/10950/3680>
- Khan, A. F., Seow, H., Sutradhar, R., Peacock, S., Chan, K. K.-W., Burge, F., McGrail, K.,

- Raymakers, A., Lawson, B., & Barbera, L. (2021). Quality of End-of-Life Cancer Care in Canada: A 12-Year Retrospective Analysis of Three Provinces' Administrative Health Care Data Evaluating Changes over Time. *Current Oncology*, 28(6), 4673–4685. <https://doi.org/10.3390/curroncol28060394>
- Koteneva, A. V., Berezina, T. N., & Rybtsov, S. A. (2021). Religiosity, Spirituality and Biopsychological Age of Professionals in Russia. *European Journal of Investigation in Health, Psychology and Education*, 11(4), 1221–1238. <https://doi.org/10.3390/ejihpe11040089>
- Lampreia-Raposo, C., Rodrigues-Correia, P., Caldeira-Berenguer, S., Mascarenhas-Rabiais, I., & Madureira-Mendes, M. (2022). Critical care nurses' emotional intelligence: A scoping review. *Enfermería Clínica (English Edition)*. <https://doi.org/10.1016/j.enfcl.2022.04.005>
- Madeira, A. J. (2021). *A percepção de autoeficácia docente para gerir situações de indisciplina e a relação entre esta e outras variáveis*. ISPA – Instituto Universitário de Ciências Psicológicas, Sociais e da Vida.
- MahdiNejad, J.-D., Azemati, H., Sadeghi habibabad, A., & Matracchi, P. (2021). Investigating the effect of age and gender of users on improving spirituality by using EEG. *Cognitive Neurodynamics*, 15(4), 637–647. <https://doi.org/10.1007/s11571-020-09654-x>
- May, K., & Scammell, J. (2020). Nurses' experiences of pain management in end-of-life dementia care: a literature review. *International Journal of Palliative Nursing*, 26(3), 110–118. <https://doi.org/10.12968/ijpn.2020.26.3.110>
- Menekli, T., Doğan, R., Erce, Ç., & Toygar, İ. (2021). Effect of educational intervention on nurses knowledge about palliative care: Quasi-experimental study. *Nurse Education in Practice*, 51, 102991. <https://doi.org/10.1016/j.nepr.2021.102991>
- Minosso, J., Martins, M., & Oliveira, M. (2017). Cross-cultural adaptation of the Bonn Palliative Care Knowledge Test: an instrument to assess knowledge and self-efficacy. *Revista de Enfermagem Referência, IV Série*(13), 31–42. <https://doi.org/10.12707/RIV16076>
- Neto, I. G., Abril, R., Romero, I., & Castro, J. (2021). Challenges and opportunities: The impact of COVID-19 in palliative care in Portugal. *Acta Medica Portuguesa*, 34(4), 247–249. <https://doi.org/10.20344/amp.15292>

- Nidhi, A. A. (2022). Effect of Age and Family Structure on Spirituality of Adolescents. *Indian Journal of Positive Psychology, 13*(2), 107–109.
- Oliveira, S., Santiago, L. M., & Dourado, M. (2021). Conhecimento sobre Cuidados Paliativos em Estudantes de Medicina da Universidade de Coimbra. *Acta Médica Portuguesa, 34*(4), 250. <https://doi.org/10.20344/amp.12590>
- Park, J., & Oh, J. (2019). Influence of Perceptions of Death, End-of-Life Care Stress, and Emotional Intelligence on Attitudes towards End-of-Life Care among Nurses in the Neonatal Intensive Care Unit. *Child Health Nursing Research, 25*(1), 38–47. <https://doi.org/10.4094/chnr.2019.25.1.38>
- Park, K., & Jeong, J. (2021). The Relationships of End-of-life Care Stress with Compassionate Competence and Attitudes toward End-of-life Care among Pediatric Nurses. *The Korean Journal of Hospice and Palliative Care, 24*(4), 235–244. <https://doi.org/10.14475/jhpc.2021.24.4.235>
- Pawlow, P., Dahlin, C., Doherty, C. L., & Ersek, M. (2018). The Hospice and Palliative Care Advanced Practice Registered Nurse Workforce. *Journal of Hospice & Palliative Nursing, 20*(4), 349–357. <https://doi.org/10.1097/NJH.0000000000000449>
- Salabarría-Peña, I., Mercado-Castro, K. L., Báez-López, K. N., Keydi N Betancourt-González, Ojeda-Vilá, M. D. C., & Ruiz-Serrano, K. M. (2022). Knowledge of and Attitudes toward End-of-life Care among Senior Medical Students at a Medical School in Puerto Rico. *P R Health Sci J, 41*(1), 13–21.
- Smets, T., Pivodic, L., Piers, R., Pasman, H. R. W., Engels, Y., Szczerbińska, K., Kylänen, M., Gambassi, G., Payne, S., Deliens, L., & Van den Block, L. (2018). The palliative care knowledge of nursing home staff: The EU FP7 PACE cross-sectional survey in 322 nursing homes in six European countries. *Palliative Medicine, 32*(9), 1487–1497. <https://doi.org/10.1177/0269216318785295>
- Spengler, M. (2015). Debunking hospice myths. *Fairfield County Business Journal, 21*.
- Todaro-Franceschi, V. (2013). Critical Care Nurses' Perceptions of Preparedness and Ability to Care for the Dying and Their Professional Quality of Life. *Dimensions of Critical Care Nursing, 32*(4), 184–190. <https://doi.org/10.1097/DCC.0b013e31829980af>
- Wang, C., Lin, Y., Chen, I., Wang, C., Peters, K., & Lin, S. (2022). Mediating effect of job performance between emotional intelligence and turnover intentions among

hospital nurses during the COVID-19 pandemic: A path analysis. *Collegian*.
<https://doi.org/10.1016/j.colegn.2022.09.006>

Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude. *The Leadership Quarterly*, 13(3), 243–274.
[https://doi.org/10.1016/S1048-9843\(02\)00099-1](https://doi.org/10.1016/S1048-9843(02)00099-1)

Zheng, R., Lee, S. F., & Bloomer, M. J. (2018). How nurses cope with patient death: A systematic review and qualitative meta-synthesis. *Journal of Clinical Nursing*, 27(1–2), e39–e49. <https://doi.org/10.1111/jocn.13975>

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