Emotional Intelligence, Teamwork and Knowledge Management: A Causal Model on Public Service Motivation among Healthcare Workers in Region XI

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Emotional Intelligence, Teamwork and Knowledge Management: A Causal Model on Public Service Motivation among Healthcare Workers in Region XI

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Purpose: Public service motivation, a pivotal factor in driving healthcare professionals to contribute to societal welfare, faces significant threats (Perry & Vandenabeele, 2015; Perry & Ritz, 2022). Globally, healthcare workers grapple with issues like staff shortages, excessive work hours, and escalating stress levels, culminating in burnout and a potential decline in service quality (Buchan, 2020; Agence France-Presse, 2021; Mendoza, 2021; Irandoost et al., 2022; Vejdani, 2021). It is for this reason that this study is conducted to establish a structural equation model of public service motivation by developing a theoretical framework explaining the relationships between various factors contributing to public service motivation, such as emotional intelligence, teamwork, and knowledge management.

Materials and Methods: Four hundred forty-three healthcare workers were selected through proportional stratified sampling. A validated and approved adapted survey questionnaire was disseminated through google form. This study was a quantitative, descriptive research project using structural equation modeling approach. Understandably, the data analysis used mean and standard deviation, Pearson r, multiple regression analysis, and structural equation modeling techniques to test the proposed theoretical framework and identify the relationships between the different constructs. IBM SPSS was utilized to analyze the data.

Findings: The healthcare workers have a high level of emotional intelligence, teamwork, knowledge management, and public service motivation. There is a significant correlation between the exogenous and endogenous latent variables. In the context of this study on Public Service Motivation, Model 5 has been designated as the best-fit model based on rigorous statistical validation and theoretical consistency. Under emotional intelligence, Appraisal and Expression in the Self and Regulation of Emotion remained. In Teamwork, Mutual Support and Team Structure remained. In Knowledge Management, Training and Mentoring, Knowledge Capture, Incentives, Leadership, and Policies remained, and under Public Service Motivation, Self-sacrifice, and Commitment to Public Interest remained in the model. Therefore, the findings of the study would be not only for the government health care workers but for the private as well.

Recommendations: Healthcare workers must be provided with training programs focused on improving emotional intelligence which can equip them with the skills to understand better and manage their emotions, improving job satisfaction and motivation; regular team-building activities to enhance collaboration, improve communication, and foster a supportive work environment; and create a knowledge-sharing system, promoting continuous learning, and providing regular training updates. In addition, they must be a system to Recognize and reward healthcare professionals for their efforts and promoting a healthy work-life balance, providing mental health resources, and ensuring manageable workloads to help maintain their high motivation levels. In Portugal, it is valuable for healthcare workers to attend to training programs to capacitate them as professionals (Amaral et al., 2022). Finally, policy makers must revisit existing systems and practices on public service motivation to be able to assess what needs to be developed for policy improvement.

Keywords: *Public Administration, Emotional Intelligence, Teamwork, Knowledge Management, Public Service Motivation, Healthcare Workers, Structural Equation Model, Philippines*

JEL Classification: H83; I18

1.0 INTRODUCTION

Public service motivation (PSM) is critical in the healthcare sector. This unique motivational factor, prevalent in professions serving the public, has significant implications for job satisfaction and performance, particularly in high-stakes areas like emergency medical services (Stefurak, Morgan and Johnson, 2020). Healthcare professionals with a high degree of PSM often feel more effective at their jobs and perform better, increasing job satisfaction (IntraHealth Librarian 2014). Healthcare professionals with a high degree of PSM often feel more effective at their jobs and perform better, increasing job satisfaction (IntraHealth Librarian 2014).

Relatedly, well-being and assurance of healthy lives of every Filipino is the third agenda in the Sustainable Development Goals (Salvacion, 2022). Public Service Motivation is essential among healthcare workers and if healthcare workers are highly motivated, they will help realize the third SDG - well-being and ensure the healthy lives of the Filipinos. A highly motivated healthcare sector will be instrumental in the access to healthcare in the Philippines.

Several factors, including emotional intelligence, teamwork, and knowledge management, significantly impact public service motivation in healthcare. High emotional intelligence enables healthcare workers to manage the emotional demands of their work more effectively, enhancing their motivation to serve (Chavez et al., 2022; Suleman et al., 2020.; Levitats & Vigoda-Gadot, 2017). Teamwork also fosters a sense of purpose and satisfaction, further boosting this motivation (Driskell, Salas & Driskell, 2018; McDaniel & Salas, 2018; Salas, Reyes & McDaniel, 2018; Sułkowski et al., 2020). Additionally, effective knowledge management allows for efficient job performance, positively influencing public service motivation (Antunes & Pinheiro, 2020; Martins et al., 2019; Ode & Ayavoo, 2020).

Furthermore, emotional intelligence, teamwork, and knowledge management influence public service motivation. Studies indicate that emotional intelligence is positively associated with compassion and public service motivation, emphasizing its role in shaping healthcare workers' service drive (Di Fabio & Saklofske, 2021; Brown et al., 2021; Suleman et al., 2020; Levitats & Vigoda-Gadot, 2017). Teamwork also enhances public service motivation by fostering a sense of purpose and fulfillment (McDaniels & Salas, 2018; Driskell, Salas & Driskell, 2018). In addition, effective knowledge management systems positively impact public service motivation by equipping healthcare workers with necessary resources for efficient performance (Chen & Hsieh, 2015; Park & Kim, 2018; Sułkowski et al., 2020; Driskell, Salas & Driskell, 2018).

Problem Statement

Although an expanding body of research explores the links between emotional intelligence, teamwork, knowledge management, and public service motivation in healthcare, specific research gaps persist. Specifically, there is a dearth of studies investigating the cumulative impact of these three elements on public service motivation. While existing research has delved into the individual relationships between these variables, a more comprehensive examination of their interactive effects on public service motivation is warranted. This would provide a more nuanced understanding of the intricate dynamics among healthcare workers.

Objectives of the Study

This study is focused on the healthcare workers. First, describe the emotional intelligence level of healthcare workers in Region XI regarding appraisal and expression of emotion in the self, appraisal and expression of emotion in others, regulation of emotion, and utilization of emotions. Second, to describe the level of teamwork among healthcare workers in Region XI in terms of team structure, leadership, situation monitoring, mutual support, and communication. Third, to assess the level of knowledge management among healthcare workers in Region XI in terms of policies, leadership, incentives, knowledge capture, training and mentoring, and knowledge sharing. Fourth, to assess the level of public service motivation among healthcare workers in Region XI regarding attraction to policy making, commitment to the public interest, compassion, and self-sacrifice. Fifth, to determine the significance of the relationship between and among the exogenous and endogenous variables; Sixth, to determine the exogenous variable that best predicts public service motivation among healthcare workers. Seventh, to establish a best-fit structural model for public service motivation.

2.0 LITERATURE REVIEW

Theoretical Framework

While no single theory explicitly assumes the relationships between emotional intelligence, teamwork, knowledge management, and public service motivation, several theories can provide practical frameworks to help explain and understand these complex relationships. Here are a few examples: social exchange, self-determination, and transformational leadership theories.

Social exchange theory. Social exchange theory is a social-psychological concept that explains the give-and-take relationships between individuals or groups. It posits that social interactions involve an exchange of rewards and costs and that individuals are motivated to maintain relationships that offer more rewards than costs. This theory suggests that individuals engage in social exchanges with others in order to maximize their rewards and minimize their costs (Blau, 1964; Homans, 1958). In the workplace context, social exchange theory suggests that employees tend to engage in positive behaviors, such as teamwork and knowledge sharing, when they perceive that their colleagues or organization will reciprocate their efforts. If workers socialize personally and professionally, it can create a healthy workplace which can prolong one's presence to work.

Self-determination theory. Self-determination theory is a framework that describes the factors that motivate individuals to engage in certain behaviors. According to this theory, three basic psychological needs drive individuals: autonomy, competence, and relatedness (Deci & Ryan, 2008; Deci & Ryan, 2012; Ryan & Deci, 2000). For example, people are motivated to engage in a behavior when they have autonomy and control over it. Similarly, individuals who feel competent and effective in their actions and feel connected to others are motivated to engage in that behavior (Di Fabio & Saklofske, 2020, 2021; Ryan & Deci, 2017).   In the context of this study, self-determined workers are motivated to perform with excellence at work.

Transformational leadership theory emphasizes the worth of leaders inspiring and motivating their followers to achieve shared goals and reach their full potential. Leaders who exhibit transformational leadership behaviors are role models who empower their followers to take ownership of their work and develop their skills and abilities (Jensen & Bro, 2018). In addition,

this theory suggests that leaders who inspire and motivate their followers can enhance their performance and job satisfaction (Bass & Avolio, 1994; Bass & Riggio, 2006).   In the context of this study, workers who serve as leaders at work can encourage others be outstanding and be role models too in their field of work. Their character could be inspiring that enables other workers to be the best in their chosen field.

3.0 MATERIALS AND METHODS

The population of this study consisted of healthcare professionals working at Southern Philippines Medical Center (SPMC) in Davao City and Davao Regional Medical Center (DRMC) in Tagum City. A proportional stratified sampling technique was used to select the sample, ensuring the results represented the population. On a percentage ratio basis, the sample population was 443, distributed as follows: 274 participants were selected from Southern Philippines Medical Center (SPMC) and 169 from Davao Regional Medical Center (DRMC). This distribution reflected the total population at each center (SPMC=2559; DRMC=1550; total=4109 doctors, nurses, and midwives).

A proportional stratified sampling was used in the selection of the respondents. In proportional stratified sampling, respondents are chosen in part according to the original distribution in a given population (Rahman et al., 2022). The Human Resource Management Officer assisted in identifying the respondents. Only those with permanent status of employment were included. Those under job order, casual and temporary employment were excluded in this study. This study used adapted sets of a questionnaire developed by the following authors: the validated *Schutte Self Report Emotional Intelligence Scale* (Musonda, Shumba and Tailoka, 2020) for emotional intelligence; the *Teamwork Perceptions Questionnaire (TPQ)* (Battles & King, 2010) for teamwork; *Knowledge Sharing Questionnaire (KSQ)* (Algahtani, 2019) for knowledge sharing; and *Public Service Motivation Measurement (PSMM)* (Budiyanti, Yamin & Patiro, 2019).

The 5-point likert scale was adopted in this study to convey the respondents' level of agreement and disagreement on statements that were modified to conform to the work settings of SPMS and DRMC. The scale adopted was 4.20-5.00, which means that the measures are always manifested; 3.40-4.19, which means that the measures are often manifested; 2.60-3.39, which means that the measures are sometimes manifested, 1.80-2.59, which means that the measures are seldom manifested; and 1:00-1.79, which means that the measures are never manifested.

This study was a quantitative, descriptive research project using structural equation modeling approach. A descriptive study is one that does not manipulate or alter the collected information. Some authors refer to descriptive research as "correlational" or "observational" studies (Doyle et al., 2020; Hermans, 2019). This study also utilized a cross-sectional design, in which the researcher collected data at a specific point in time (Setia, 2016; Wang & Cheng, 2020). The researcher then invited participants to complete the questionnaire online via google forms.

After the data collection, Structural Equation Modeling (SEM) was used in this study to analyze the complex relationship between variables. SEM was beneficial in this research because it tested complex theoretical models that involved multiple variables and relationships. SEM was a powerful tool for this study because it tested complex theoretical models and helped understand

the relationships between multiple variables (Civelek, 2018; Mueller & Hancock, 2019). The data was presented through tables with narratives describing the results of the study.

Finally, the procedure for data collection involved approval of the Heads of SPMC and DRMC allowing the conduct of the study after the approval of the University of Mindanao Ethics Review Committee with protocol number 2023-363 dated July 8, 2023.

4.0 RESULTS AND DISCUSSION

The emotional intelligence of healthcare workers is described as high.   The result shows that healthcare workers in Region XI are generally proficient in managing emotional tasks and navigating social complexities in their professional environment. High Emotional Intelligence (EI) among healthcare workers can result in better patient outcomes, enhanced teamwork and communication, and lower levels of stress and burnout (Sharp, Bourke & Rickard, 2020). A review of related literature shows that healthcare professionals with high emotional intelligence better understand and respond to patients' emotional states, leading to more effective patient care. They can empathize with patients, build solid therapeutic relationships, and deliver care sensitive to patients' emotional needs (Clarke et al., 2017; Smith et al., 2009).

The *teamwork* of healthcare workers is high. This reveals that healthcare workers in Region XI work well together to provide quality patient care. Robust teamwork and collaboration are imperative to ensure safe and effective healthcare delivery within individual units and across various organizational, disciplinary, and technical spheres (Donovan et al., 2018; Rosen et al., 2018). The sentiment expressed in the study by Fox et al. (2018) underscores the importance of integrating teamwork training early in the educational journey of healthcare professionals. Embedding such training from the onset equips students with essential collaborative skills and sets the stage for   a culture of inter-professionalism. This early intervention is critical for developing a workforce adept in technical skills and the relational competencies required for effective inter-professional collaboration, ultimately contributing to safer and more efficient healthcare systems.

The knowledge management of healthcare workers is high. The consistently high mean scores for all domains show that healthcare workers in Region XI generally adhere to Knowledge management.   Knowledge management plays a critical role in shaping social exchange relationships, facilitating the dissemination and exchange of expertise among individuals and groups within an organization. The consistently high mean scores for each domain suggest that healthcare workers in Region XI generally adhere to Knowledge management. Knowledge management plays a critical role in shaping social exchange relationships, facilitating the dissemination and exchange of expertise among individuals and groups within an organization.

The *public service motivation* of healthcare workers is described as high. This means that healthcare workers in Region XI are highly motivated. Public service motivation significantly fosters a service culture and professional ethics within healthcare institutions. When healthcare professionals are driven to serve their communities, it encourages a collaborative work environment, prioritizes patient-centric care, and upholds stringent ethical standards. This motivation is pivotal not only for the well-being of healthcare workers but also for the quality of care rendered and the overall operational effectiveness of healthcare organizations (Deng et al., 2019; Luu et al., 2019; Ritz, Vandenabeele & Vogel, 2021; Kim, 2021).

Moreover, all tests are significant, which rejected the null hypothesis affirming the study that emotional intelligence and public service motivation are positively associated, teamwork and public service motivation have linkage, and that there is a connection between knowledge management and public service motivation. In addition, a significant influence was found on emotional intelligence, teamwork and knowledge management on public service motivation on the healthcare workers in Region XI.

Most importantly, Model 5 was found to be the best-model fit for meeting all the criterion indices of the goodness of fit measures. The model revealed that all indices fit each criterion range for being greater than .95: p-value = .119, CMIN/DF = 1.300, RMSEA = 0.26, p-close = .976, TLI=.996, NFI=.991, CFI=.998, and GFI = 0.984. Therefore, this model best describes the public service motivation of healthcare workers in Region XI as provided for in Table 1.

Table 1: Summary of Goodness of Fit Measures of the Five Generated Models

Model	P-value (>0.05)	CMIN / DF ($0<$value<2)	GFI (>0.95)	CFI (>0.95)	NFI (>0.95)	TLI (>0.95)	RMSEA (<0.05)	P-close (>0.05)
1	.000	10.214	.772	.843	.829	.819	.145	.000
2	.000	6.049	.853	.915	.900	.901	.107	.000
3	.000	3.602	.886	.956	.940	.949	.077	.000
4	.000	3.549	.888	.957	.942	.950	.076	.000
5	.119	1.300	.984	.998	.991	.996	.026	.976

Legend: CMIN/DF–*Chi-Square/Degrees of Freedom*   NFI–*Normed   Fit   Index*
          GFI–Goodness *of Fit Index*   TLI-*Tucker-Lewis   Index*
          RMSEA–*Root Mean Square of Error Approximation*   CFI – Comparative *Fit Index*

5.0 CONCLUSION AND RECOMMENDATIONS

Conclusion

The study reveals a high level of Emotional Intelligence, Teamwork, and Knowledge Management among Region XI healthcare workers. Emotional intelligence is crucial in healthcare settings, where professionals often deal with high-stress situations and need to empathize with patients. Also of relevance is Teamwork which is essential in healthcare, as it often involves collaborative efforts to provide patient care. Meanwhile, an effective Knowledge Management can ensure that healthcare professionals have access to the latest medical research and best practices.

Based on the data collected, there is a significant relationship between Emotional Intelligence, Teamwork, Knowledge Management, and Public Service Motivation. High Emotional Intelligence, effective Teamwork, and robust Knowledge Management likely contribute to the healthcare workers' high Public Service Motivation. This indicates that these elements are integral to fostering motivation in public service roles, particularly in the healthcare sector. As found in this study, Emotional Intelligence, Teamwork and Knowledge Management significantly influence Public Service Motivation. Finally, there is a model of public service motivation among healthcare professionals.

Recommendations

Healthcare workers must be provided with training programs focused on improving emotional intelligence to equip them with the skills to understand better and manage their emotions, improving job satisfaction and motivation. This could involve regular training sessions on emotional intelligence skills, such as empathy, self-awareness, and effective emotional management. Conduct of regular team-building activities to enhance collaboration, improve communication, and foster a supportive work environment. This can lead to increased motivation and job satisfaction among healthcare professionals. The creation of a knowledge-sharing system as part of knowledge management can promote continuous learning, and provide regular training updates. Such practices can help healthcare professionals feel more competent, leading to increased motivation.

Recognizing and rewarding healthcare professionals for their efforts can also increase motivation. This could involve financial incentives and non-monetary rewards like public recognition, additional vacation time, or opportunities for professional development. Promoting a healthy work-life balance, providing mental health resources, and ensuring manageable workloads can also help maintain high motivation levels. Finally, policy makers must revisit existing systems and practices on public service motivation to be able to assess what needs to be developed for policy improvement. Further, research should be conducted to identify additional factors influencing public service motivation among healthcare professionals. This will allow for the development of more comprehensive strategies to enhance motivation in this sector.

REFERENCES

Abbate, S., Centobelli, P., Cerchione, R., Oropallo, E., & Riccio, E. (2022). Investigating healthcare 4.0 transition through a knowledge management perspective. IEEE Transactions on Engineering Management, 70(9), 3297–3310. https://doi.org/10.1109/TEM.2022.3200889

Agence France. Presse 2021. Burned out Philippine nurses battle Covid-19, resignations. https://www.manilatimes.net/2021/09/21/opinion/burned-out-philippine-nurses-battle-covid-19-resignations/1815452

Akinade, M. E., & Obiekwe, O. Impact of team building on organizational performance: A theoretical review.

Akoglu, H. (2018). User's guide to correlation coefficients. Turkish Journal of Emergency Medicine, 18(3), 91–93. https://doi.org/10.1016/j.tjem.2018.08.001

Alavi, M., & Leidner, D. E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. MIS Quarterly, 25(1), 107–136. https://doi.org/10.2307/3250961

Algahtani, K. (2019). Knowledge management in the Kingdom of Saudi Arabia public sector organisations.

Alibudbud, R. (2022). When the "heroes" "don't feel cared for": The migration and resignation of Philippine nurses amidst the COVID-19 pandemic. Journal of Global Health, 2, 03011. https://doi.org/10.7189/jogh.12.03011

Almanasreh, E., Moles, R., & Chen, T. F. (2019). Evaluation of methods used for estimating content validity. Research in Social and Administrative Pharmacy, 15(2), 214–221. https://doi.org/10.1016/j.sapharm.2018.03.066

Amaral, C., Sequeira, C., Albacar-Riobóo, N., Coelho, J., Pinho, L. G., & Ferré-Grau, C. (2023). Patient safety training programs for health care professionals: A scoping review. Journal of Patient Safety, 19(1), 48–58. https://doi.org/10.1097/PTS.0000000000001067

Antunes, H. D. J. G., & Pinheiro, P. G. (2020). Linking knowledge management, organizational learning, and memory. Journal of Innovation and Knowledge, 5(2), 140–149. https://doi.org/10.1016/j.jik.2019.04.002

Babaei, S., & Taleghani, F. (2019). Compassionate care challenges and barriers in clinical nurses: A qualitative study. Iranian Journal of Nursing and Midwifery Research, 24(3), 213–219. https://doi.org/10.4103/ijnmr.IJNMR_100_18

Barrantes Briceño, C. E., & Almada Santos, F. C. (2019). Knowledge management, the missing piece in the 2030 agenda and SDGs puzzle. International Journal of Sustainability in Higher Education, 20(5), 901–916. https://doi.org/10.1108/IJSHE-01-2019-0019

Bass, B. M., & Avolio, B. J. (Eds.). (1994). Improving organizational effectiveness through transformational leadership. SAGE.

Bass, B. M., & Riggio, R. E. (2006). Transformational leadership.

Battles, J., & King, H. B. (2010). Team STEPPS teamwork perceptions questionnaire manual. American Institute for Research.

Bauchner, H., & Easley, T. J. (2020). Healthcare heroes of the COVID-19 pandemic. JAMA, 323(20), 2021–2021. https://doi.org/10.1001/jama.2020.6197

Belrhiti, Z., Van Damme, W., Belalia, A., & Marchal, B. (2019). Does public service motivation matter in Moroccan public hospitals? A multiple embedded case study. International Journal for Equity in Health, 18(1), 160. https://doi.org/10.1186/s12939-019-1053-8

Blau, P. M. (1964). 1964 exchange and power in social life. Wiley.

Boparai, J. K., Singh, S., & Kathuria, P. (2018). How to design and validate a questionnaire: A guide. Current Clinical Pharmacology, 13(4), 210–215. https://doi.org/10.2174/1574884713666180807151328

Brown, L., Haines, S., Amonoo, H. L., Jones, C., Woods, J., Huffman, J. C., & Morris, M. E. (2021, December). Sources of Resilience in frontline health professionals during COVID-19. In Healthcare (Vol. 9, No. 12, p. 1699). Multidisciplinary Digital Publishing Institute, 9(12). https://doi.org/10.3390/healthcare9121699

Buchan, J., & Catton, H. (2020). COVID-19 and the international supply of nurses.

Budiyanti, H., Patiro, A., & Yamin, A. (2019). Public service motivation measurement: A test of Perry's scale in Indonesia. JKAP, 23(1), 16–32. https://doi.org/10.22146/jkap.39653

Bulmer Smith, K. B., Profetto-McGrath, J., & Cummings, G. G. (2009). Emotional intelligence and nursing: An integrative literature review. International Journal of Nursing Studies, 46(12), 1624–1636. https://doi.org/10.1016/j.ijnurstu.2009.05.024

Caballero-Anthony, M., Cook, A. D. B., & Chen, C. (2021). Knowledge management and humanitarian organisations in the Asia-Pacific: Practices, challenges, and future pathways. International Journal of Disaster Risk Reduction, 53, 102007. https://doi.org/10.1016/j.ijdrr.2020.102007

Chavez, J. C., Bandiola, A. N., Chavez, D. C. B., & Ligan, V. O. (2022). Political skills, resilience at work, and public service motivation: A structural equation model on job engagement of police personnel in region XI. International Journal of Innovative Science and Research Technology, 7(10), 951, 986.

Chen, C. A., & Hsieh, C. W. (2015). Knowledge sharing motivation in the public sector: The role of public service motivation. International Review of Administrative Sciences, 81(4), 812–832. https://doi.org/10.1177/0020852314558032

Chugh, R., & Joshi, M. (2020). Challenges of knowledge management amidst rapidly evolving tools of social media. In Information diffusion management and knowledge sharing: Breakthroughs in Research and practice (pp. 299–314). IGI Global. https://doi.org/10.4018/978-1-5225-0495-5.ch014

Civelek, M. E. (2018). Essentials of structural equation modeling. Zea Books. https://doi.org/10.13014/K2SJ1HR5

Clarke, S., Ells, C., Thombs, B. D., & Clarke, D. (2017). Defining elements of patient-centered care for therapeutic relationships: A literature review of common themes. European Journal for Person Centered Healthcare, 5(3). https://doi.org/10.5750/ejpch.v5i3.1337

Codier, E., Kamikawa, C., Kooker, B. M., & Shoultz, J. (2009). Emotional intelligence, performance, and retention in clinical staff nurses. Nursing Administration Quarterly, 33(4), 310–316. https://doi.org/10.1097/NAQ.0b013e3181b9dd5d

Cordero, Jr., D. A. (2022). The saga of Filipino healthcare workers during the COVID-19 pandemic. Asia-Pacific Journal of Public Health, 34(8), 889. https://doi.org/10.1177/10105395221128644

Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macro theory of human motivation, development, and health. Canadian Psychology / Psychologie Canadienne, 49(3), 182–185. https://doi.org/10.1037/a0012801

Deci, E. L., & Ryan, R. M. (2012). Self-determination theory.

Deci, E. L., & Ryan, R. M. (2013). Intrinsic motivation and self-determination in human behavior. Springer Science+Business Media.

Deng, J., Guo, Y., Ma, T., Yang, T., & Tian, X. (2019). How job stress influences job performance among Chinese healthcare workers: A cross-sectional study. Environmental Health and Preventive Medicine, 24(1), 2. https://doi.org/10.1186/s12199-018-0758-4

Deng, J., Liu, J., Guo, Y., Gao, Y., Wu, Z., & Yang, T. (2021). How does social support affect public service motivation of healthcare workers in China: The mediating effect of job stress. BMC Public Health, 21(1), 1076. https://doi.org/10.1186/s12889-021-11028-9

Di Fabio, A., & Saklofske, D. H. (2021). The relationship of compassion and self-compassion with personality and emotional intelligence. Personality and Individual Differences, 169, 110109. https://doi.org/10.1016/j.paid.2020.110109

Di Fabio, A., Smith, M. M., & Saklofske, D. H. (2019). Perfectionism and a healthy attitude toward oneself: Could humor be a resource? International Journal of Environmental Research and Public Health, 17(1), 201. https://doi.org/10.3390/ijerph17010201

Donovan, A. L., Aldrich, J. M., Gross, A. K., Barchas, D. M., Thornton, K. C., Schell-Chaple, H. M., Gropper, M. A., Lipshutz, A. K. M., & University of California, San Francisco Critical Care Innovations Group. (2018). Interprofessional care and teamwork in the ICU. Critical Care Medicine, 46(6), 980–990. https://doi.org/10.1097/CCM.0000000000003067

Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2020). An overview of the qualitative descriptive design within nursing research. Journal of Research in Nursing, 25(5), 443–455. https://doi.org/10.1177/1744987119880234

Driskell, J. E., Salas, E., & Driskell, T. (2018). Foundations of teamwork and collaboration. American Psychologist, 73(4), 334–348. https://doi.org/10.1037/amp0000241

Druskat, V. U., & Wolff, S. B. (2001). Building the emotional intelligence of groups. Harvard Business Review, 79(3), 80–91.

Fernandes, A., Santinha, G., & Forte, T. (2022). Public service motivation and determining factors to attract and retain health professionals in the public sector: A systematic review. Behavioral Sciences, 12(4), 95. https://doi.org/10.3390/bs12040095

Flores, H. (2021). Prince Charles pays tribute to Filipino health workers. https://www.philstar.com/headlines/2021/06/12/2104814/prince-charles-pays-tribute-filipino-health-workers

Fox, L., Onders, R., Hermansen-Kobulnicky, C. J., Nguyen, T. N., Myran, L., Linn, B., & Hornecker, J. (2018). Teaching interprofessional teamwork skills to health professional students: A scoping review. Journal of Interprofessional Care, 32(2), 127–135. https://doi.org/10.1080/13561820.2017.1399868

Fraser, J., Fahlman, D. W., Arscott, J., & Guillot, I. (2018). Pilot testing for feasibility in a study of student retention and attrition in online undergraduate programs. International Review of Research in Open and Distributed Learning, 19(1). https://doi.org/10.19173/irrodl.v19i1.3326

Gayathri, N., & Meenakshi, K. (2013). A literature review of emotional intelligence. International Journal of Humanities and Social Science Invention, 2(3), 42–51.

Goleman, D. (1996). Emotional intelligence. Why it can matter more than IQ. Learning, 24(6), 49–50.

Hassan, Z. (2022). Employee retention through effective human resource management practices in Maldives: Mediation effects of compensation and rewards system. Journal of Entrepreneurship, Management and Innovation, 18(2), 137–173. https://doi.org/10.7341/20221825

Hermans, T. (2019). Translation in systems: Descriptive and systemic approaches explained. Routledge.

Hislop, D., Bosua, R., & Helms, R. (2018). Knowledge management in organizations: A critical introduction. Oxford University Press.

Homans, G. C. (1958). Social behavior as exchange. American Journal of Sociology, 63(6), 597–606. https://doi.org/10.1086/222355

Hoyle, R. H. (Ed.). (2012). Handbook of structural equation modeling. Guilford Press.

IntraHealth Librarian 2014, Why is Motivation Important in Health Care?, Hrhresourcecenter.org.

Irandoost, S. F., Yoosefi Lebni, J., Safari, H., Khorami, F., Ahmadi, S., Soofizad, G., & Ebadi Fard Azar, F. (2022). Explaining the challenges and adaptation strategies of nurses in caring for patients with COVID-19: A qualitative study in Iran. BMC Nursing, 21(1), 1–16.

Jensen, U. T., & Bro, L. L. (2018). How transformational leadership supports intrinsic and public service motivation: The mediating role of basic need satisfaction. American Review of Public Administration, 48(6), 535–549. https://doi.org/10.1177/0275074017699470

Karaferis, D., Aletras, V., Raikou, M., & Niakas, D. (2022). Factors influencing motivation and work engagement of healthcare professionals. Materia Socio-Medica, 34(3), 216–224. https://doi.org/10.5455/msm.2022.34.216-224

Karamat, J., Shurong, T., Ahmad, N., Waheed, A., & Mahmood, K. (2018). Enablers supporting the implementation of knowledge management in the healthcare of Pakistan. International Journal of Environmental Research and Public Health, 15(12), 2816. https://doi.org/10.3390/ijerph15122816

Kim, S. (2021). Education and public service motivation: A longitudinal study of high school graduates. Public Administration Review, 81(2), 260–272. https://doi.org/10.1111/puar.13262

Kline, R. B. (2015). Principles and practice of structural equation modeling. Guilford Publications.

Krippendorff, K. (2018). Content analysis: An introduction to its methodology. Sage Publications.

Levitats, Z., & Vigoda-Gadot, E. (2017). Yours Emotionally: How emotional intelligence infuses public service motivation and affects the job outcomes of public personnel. Public Administration, 95(3), 759–775. https://doi.org/10.1111/padm.12342

Lin, H. F. (2007). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. Journal of Information Science, 33(2), 135–149. https://doi.org/10.1177/0165551506068174

Luu, T. T., Rowley, C., Dinh, C. K., Qian, D., & Le, H. Q. (2019). Team creativity in public healthcare organizations: The roles of charismatic leadership, team job crafting, and collective public service motivation. Public Performance and Management Review, 42(6), 1448–1480. https://doi.org/10.1080/15309576.2019.1595067

Lydersen, S. (2020). Mean and standard deviation or median and quartiles?. Tidsskrift for Den Norske Laegeforening: Tidsskrift for Praktisk Medicin, Ny Raekke, 140(9). https://doi.org/10.4045/tidsskr.20.0032 Tidsskrift for Den norske legeforening

MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. Psychological Methods, 4(1), 84–99. https://doi.org/10.1037/1082-989X.4.1.84

Martins, V. W. B., Rampasso, I. S., Anholon, R., Quelhas, O. L. G., & Leal Filho, W. (2019). Knowledge management in sustainability: Literature review and opportunities for future research. Journal of Cleaner Production, 229, 489–500. https://doi.org/10.1016/j.jclepro.2019.04.354

McDaniel, S. H., & Salas, E. (2018). The science of teamwork: Introduction to the special issue. American Psychologist, 73(4), 305–307. https://doi.org/10.1037/amp0000337

McGrath, S., Zhao, X., Steele, R., Thombs, B. D., Benedetti, A., & DEPRESsion Screening Data (DEPRESSD) Collaboration. (2020). Estimating the sample mean and standard deviation from commonly reported quantiles in meta-analysis. Statistical Methods in Medical Research, 29(9), 2520–2537. https://doi.org/10.1177/0962280219889080

Mendoza, R. (2021). Nurses are leaving in droves. https://www.manilatimes.net/2021/10/20/news/national/nurses-leaving-in-droves-pha/1819057. Pulmonary Hypertension Association.

Miao, Q., Newman, A., Schwarz, G., & Cooper, B. (2018). How leadership and public service motivation enhance innovative behavior. Public Administration Review, 78(1), 71–81. https://doi.org/10.1111/puar.12839

Morrissey, M. B., & Ruxton, G. D. (2018). Multiple regression is not multiple regressions: The meaning of multiple regression and the non-problem of collinearity. Philosophy, Theory, and Practice in Biology, 10(20220112). https://doi.org/10.3998/ptpbio.16039257.0010.003

Mueller, R. O., & Hancock, G. R. (2019). Structural equation modeling. Routledge/Taylor & Francis Group.

Musonda, A., Shumba, O., & Tailoka, F. P. (2020). Validation of the Schutte self report emotional intelligence scale in a Zambian context. Validation of the Schutte Self Report Emotional Intelligence Scale in a Zambian Context, 2, 2, 31–41.

Obilor, E. I., & Amadi, E. C. (2018). Test for significance of Pearson's correlation coefficient. International Journal of Innovative Mathematics, Statistics & Energy Policies, 6(1), 11–23.

Ode, E., & Ayavoo, R. (2020). The mediating role of knowledge application in the relationship between Knowledge management and firm innovation. Journal of Innovation and Knowledge, 5(3), 210–218. https://doi.org/10.1016/j.jik.2019.08.002

Paiva, J. C., Leal, J. P., & Figueira, Á. (2022). Automated assessment in computer science education: A state-of-the-art review. ACM Transactions on Computing Education, 22(3), 1–40. https://doi.org/10.1145/3513140

Park, S., & Kim, E. J. (2018). Fostering organizational learning through leadership and knowledge sharing. Journal of Knowledge Management, 22(6), 1408–1423. https://doi.org/10.1108/JKM-10-2017-0467

Pereira de Souza, V., Baroni, R., Choo, C. W., Castro, J. M. D., & Barbosa, R. R. (2021). Knowledge management in health care: An integrative and result-driven clinical staff management model. Journal of Knowledge Management, 25(5), 1241–1262. https://doi.org/10.1108/JKM-05-2020-0392

Perry, J. L., & Ritz, A. (2022). Public service motivation. In Elgar encyclopedia of public management (pp. 172–175). Edward Elgar Publishing Limited.

Perry, J. L., & Vandenabeele, W. (2015). Public service motivation research: Achievements, challenges, and future directions. Public Administration Review, 75(5), 692–699. https://doi.org/10.1111/puar.12430

Perry, J. L., & Wise, L. R. (1990). The motivational bases of public service. Public Administration Review, 50(3), 367–373. https://doi.org/10.2307/976618

Rahman, M. M., Tabash, M. I., Salamzadeh, A., Abduli, S., & Rahaman, M. S. (2022). Sampling techniques (probability) for quantitative social science researchers: A conceptual guidelines with examples. Southeastern Europe [Review], 17(1), 42–51. https://doi.org/10.2478/seeur-2022-0023.CenterRitz, Vandenabeele, A., W., & Vogel, D. (2021). Public service motivation and individual job performance. Managing for public service performance: How people and values make a difference, pp. 254–277.

Rosen, M. A., DiazGranados, D., Dietz, A. S., Benishek, L. E., Thompson, D., Pronovost, P. J., & Weaver, S. J. (2018). Teamwork in healthcare: Key discoveries enabling safer, high-quality care. American Psychologist, 73(4), 433–450. https://doi.org/10.1037/amp0000298

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68

Ryan, R. M., & Deci, E. L. (2017). Self-determination theory: Basic psychological needs in motivation, development, and wellness. Guilford Publications.

Salas, E., Reyes, D. L., & McDaniel, S. H. (2018). The science of teamwork: Progress, reflections, and the road ahead. American Psychologist, 73(4), 593–600. https://doi.org/10.1037/amp0000334

Salas, E., Sims, D. E., & Burke, C. S. (2005). Is there a "big five" in teamwork? Small Group Research, 36(5), 555–599. https://doi.org/10.1177/1046496405277134

Salvacion, A. R. (2022). Measuring spatial accessibility of healthcare facilities in Marinduque, Philippines. ISPRS International Journal of Geo-Information, 11(10), 516. https://doi.org/10.3390/ijgi11100516

Schmutz, J. B., Meier, L. L., & Manser, T. (2019). How effective is teamwork really? The relationship between teamwork and performance in healthcare teams: A systematic review and meta-analysis. BMJ Open, 9(9), e028280. https://doi.org/10.1136/bmjopen-2018-028280

Schniederjans, D. G., Curado, C., & Khalajhedayati, M. (2020). Supply chain digitisation trends: An integration of knowledge management. International Journal of Production Economics, 220, 107439. https://doi.org/10.1016/j.ijpe.2019.07.012

Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: Appropriate use and interpretation. Anesthesia and Analgesia, 126(5), 1763–1768. https://doi.org/10.1213/ANE.0000000000002864

Schutte, N. S., Malouff, J. M., Thorsteinsson, E. B., Bhullar, N., & Rooke, S. E. (2007). A meta-analytic investigation of the relationship between emotional intelligence and health. Personality and Individual Differences, 42(6), 921–933. https://doi.org/10.1016/j.paid.2006.09.003

Setia, M. S. (2016). Methodology series module 3: Cross-sectional studies. Indian Journal of Dermatology, 61(3), 261–264. https://doi.org/10.4103/0019-5154.182410

Sharp, G., Bourke, L., & Rickard, M. J. F. X. (2020). Review of emotional intelligence in health care: An introduction to emotional intelligence for surgeons. ANZ Journal of Surgery, 90(4), 433–440. https://doi.org/10.1111/ans.15671

Skorpen Tarberg, A., Landstad, B. J., Hole, T., Thronaes, M., & Kvangarsnes, M. (2020). Nurses' experiences of compassionate care in the palliative pathway. Journal of Clinical Nursing, 29(23–24), 4818–4826. https://doi.org/10.1111/jocn.15528

Spoorthy, M. S., Pratapa, S. K., & Mahant, S. (2020). Mental health problems faced by healthcare workers due to the COVID-19 pandemic–A review. Asian Journal of Psychiatry, 51, 102119. https://doi.org/10.1016/j.ajp.2020.102119

Stefurak, T., Morgan, R., & Johnson, R. B. (2020). The relationship of public service motivation to job satisfaction and job performance of emergency medical services professionals. Public Personnel Management, 49(4), 590–616. https://doi.org/10.1177/0091026020917695

Stockemer, D. (2019). Quantitative methods for the social sciences: A practical introduction with examples in SPSS and Stata. by the registered company Springer Nature Switzerland AG.

Suleman, Q., Syed, M. A., Mahmood, Z., & Hussain, I. (2020). Correlating emotional intelligence with job satisfaction: Evidence from a cross-sectional study among Secondary School Heads in Khyber Pakhtunkhwa, Pakistan. Frontiers in Psychology, 11, 240. https://doi.org/10.3389/fpsyg.2020.00240

Sułkowski, Ł., Przytuła, S., Borg, C., & Kulikowski, K. (2020). Performance appraisal in universities—Assessing the tension in public service motivation (PSM). Education Sciences, 10(7), 174. https://doi.org/10.3390/educsci10070174

Tiwari, S. P. (2022). Emerging technologies: Factors influencing knowledge sharing. World journal of educational research.

Van Loon, N., Kjeldsen, A. M., Andersen, L. B., Vandenabeele, W., & Leisink, P. (2018). Only when the societal impact potential is high? A panel study of the relationship between public service motivation and perceived performance. Review of Public Personnel Administration, 38(2), 139–166. https://doi.org/10.1177/0734371X16639111

Vázquez-Ingelmo, A., García-Holgado, A., García-Peñalvo, F. J., & Therón, R. (2019). Dashboard meta-model for knowledge management in technological ecosystem: A case study in healthcare. Multidisciplinary Digital Publishing Institute Proceedings, 31(1), 44. https://doi.org/10.3390/proceedings2019031044

Vejdani, M., Foji, S., Jamili, S., Salehabadi, R., Adel, A., Ebnehoseini, Z., Aval, S. B., Anjidani, A. A., & Ebrahimipour, H. (2021). Challenges faced by nurses while caring for COVID-19 patients: A qualitative study. Journal of Education and Health Promotion, 10, 423. https://doi.org/10.4103/jehp.jehp_1550_20

Wang, X., & Cheng, Z. (2020). Cross-sectional studies: Strengths, weaknesses, and recommendations. Chest, 158(1S), S65–S71. https://doi.org/10.1016/j.chest.2020.03.012

Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. Education in Medicine Journal, 11(2), 49–54. https://doi.org/10.21315/eimj2019.11.2.6

Zamanzadeh, V., Valizadeh, L., Rahmani, A., van der Cingel, M., & Ghafourifard, M. (2018). Factors facilitating nurses to deliver compassionate care: A qualitative study. Scandinavian Journal of Caring Sciences, 32(1), 92–97. https://doi.org/10.1111/scs.12434

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