Special Article

Job Satisfaction of Nurses: A Literature Review

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Abstract

Background: Job satisfaction has been in the scope of nursing researchers for quite long time. Nurses are the largest group working in healthcare facilities, provide services continuously and their work and behavior affect positively the provision of quality services.

Aim: The aim of the present literature review was to investigate in the literature how is approached the job satisfaction of nurses.

Results: In the modern literature there is a number of factors that are related to the job satisfaction. Among those factors are the work environment, the nature of the job, the relations with colleagues, financial issues and the ability to to get promotion in the hierarchy. Nurses' work performance and satisfaction from it have been proven to affect the provision of care and being an indicator of quality of healthcare services.

Conclusion: Low nurses' job satisfaction has been linked to low quality of care, ineffective care and negative outcomes. In order to have and retain satisfied nursing staff, administration should implement the new leadership models and ways of ensuring the internal and external satisfaction.

Key words: nurses, job satisfaction, administration

Background

According to Rivai (2006) "job satisfaction satisfaction is a description of a person feeling, happy or unhappy, satisfied or dissatisfied in work". According to Salam (2014), the factors affecting job satisfaction are: (1) salary, (2) the job itself, (3) colleagues, (4) boss, and (5) promotion and work environment.

The World Health Organization (WHO), the International Council of Nurses (ICN) and the International Labour Organization (ILO) have found that inadequate working conditions can affect nurses' job satisfaction (Hellín Gil et al., 2022). A number of studies have examined job satisfaction among nursing staff (Liu, Aungsuroch & Yunibhand, 2016; Lu, Zhao & While, 2019; Aloisio, Coughlin & Squires,

2021). Nurses and nursing staff in general are the largest group of employees within healthcare and provide services continuously and uninterruptedly. Therefore, their work performance and behavior contributes to the creation of conditions that affect positively the provision of quality services and produce a climate of satisfaction for the patients.

Nurses' job satisfaction has been the subject of analytical studies at international level and is an indirect indicator of the quality of nursing services. In fact, studies have shown that reduced job satisfaction is inextricably linked to low quality of nursing services, ineffective care and negative patient outcomes (Moumtzoglou, 2010; Kalisch & Lee, 2014; Lu, Zhao and While, 2019; Abidakun & Ganiyu, 2020; Muwanguzi,

2022). According to Kourakos et al. (2012), in a study in Grece, they found that women and older nurses stated that their work demands negatively affect the time and energy that they allocate to themselves and their family, while family issues do not seem to affect their work. In addition, job satisfaction and personal achievement were found to be positively correlated with each other, while job satisfaction and personal achievements were found to be positively correlated with each other. General factors also affect the satisfaction of nursing staff, such as government support, administrative support and the employer's commitment to nursing services. In Greece, low job satisfaction and wish to leave the profession was affected by the fact that many nurses sought transfer to other jobs in the same healthcare organisation or in primary settings and the irrational allocation of nursing positions in public hospitals. Other Greek publications on nurses' job satisfaction revealed significantly lower scores compared to other professional groups, and in addition hospital nurses do not perform their tasks as good as in those working in primary settings. Variables such as workload, supervisor support, work routine, salary and infrastructure play an important role in nurses' job satisfaction (Borou et al., 2010; Gogos & Petsetaki, 2011, Sapountzi-Krepia et all., 2017, Platis et all., 2021).

Lack of job satisfaction and, worldwide, shortage of graduate nurses are considered to be the main reasons for nurses' leaving the profession (Poghosyan et al., 2017; WHO, 2022). In another study conducted in ten European countries it was found that 13% of nurses often consider leaving the profession (Hasselhorn et al., 2005). According to the findings of another study in Europe and the USA, the proportion of nurses who were planning to leave their jobs ranged from 49% (in Finland and Greece) to 14% (in the USA) (Aiken et al., 2012; The NNU report, 2022; WHO, 2022).

The nursing staff shortage is a continuing phenomenon in Europe and worldwide and it has received significant research and media attention. The recruitment of nursing staff is a international problem and research findings have recognised that it is related to various factors, the main of them being low job satisfaction (Tovey and Adams, 1999; Kingma, 2007; Dor and Halperin, 2022). Low job satisfaction also has a negative impact on the quality of patient care (McNeese-Smith, 1999) and nurses' physical and psychological health (Cavanagh, 1996; Cavanagh and Bamford, 1997).

Factors Affecting Nurses' Job Satisfaction

Among the common factors that affect nurses' job satisfaction is the hectic working rhythm in the hospital, the shortage of specialized nurses, the low salary, the lack of opportunities for development, the team work, and non-cooperative administration (Mari et al., 2018). In addition, the overall job satisfaction is a combination of intrinsic and extrinsic factors (Smerek and Peterson, 2007). In intrinsic job satisfaction, employees take into account the type and the activities they perform at work, while in extrinsic job satisfaction; nurses take into account their collaboration with colleagues, management style, and the workplace communication (Tamata Mohammadnezhad, 2022). Work-related factors affecting job satisfaction are related to nurses' desire to use their skills and competencies and to be able to make a significant contribution to the patients care (Ozdoba et al., 2022). On the management point of view, employers want people who perform their tasks and contribute to the achievement of their business goals. When administrative organizations find people who fit their requirements and are happy with what is offered, then a win-win situation arises between employer and employee.

Job rotation in nursing staff involves moving workers from one department to another in order to increase their knowledge and skills in all areas. In a study in Greek nursing population it was shown that job rotation was positively related to job satisfaction and that gender and years of work were not affecting job satisfaction (Platis et all, 2021).

Joining a team

In contemporary societies, people live in a way where group communication is usually taking place in many forms. In their research, Shujaat et al. (2014) found that group work and communication quality have an important impact on an employee's job

satisfaction. One element of job satisfaction is the positive experience of being part of a team that achieves the proper functioning of a department or administrative organisation (Amos et al., 2005; Chen and Johantgen, 2010; Cezar-Vaz et al., 2022). The clear definition of the goals of the team and the commitment of its members to their implementation, the cohesion and mutual trust between partners, the possibility of autonomy, and the fair reward system based on the recognition of work offered are strong incentives to improve the efficiency of the nursing team (Connelly et al., 2003). Also, teamwork has been positively associated with higher levels of job satisfaction (Rocha et all., 2019). Supervisor support in team work can be a source of job satisfaction, especially in organisations with higher levels of teamworking (Griffin et al., 2001).

Psychological factors and Emotional exhaustion

Job satisfaction is influenced by internal factors of the workplace such as productivity. It is emphasized that improving employee satisfaction leads to an increasement of productivity, while dissatisfaction can lead to increased absenteeism, late attendance and complaints. The employees' mentality, behaviors and personality are contributing to the concept of job satisfaction for each staff member (Laschinger and Havens, 1997; Collins et al., 2000). Job satisfaction is described even in terms of psychological concepts, including attitudes towards work, work ethic, professional development, and work development (Aiken et al., 2001; Cowin, 2002).

Burnout has been classified by the WHO as an occupational disease and has its roots to chronic stress (Acea-López et al., 2021). It been described as having three dimensions: emotional exhaustion, depersonalization and sense of low personal accomplishment (Maslach and Leiter, 2016). Nevertheless. this frequently emotional, behavioral, psychosomatic and social changes, as well as a loss of work efficiency and disturbances in family life (Pérula et al., 2016). Burnout is often identified in health care environments and the factors contributing to its development and consequences for individuals, organisations,

or their patients are not always studied in depth (Dall' Ora et al., 2020).

Lee et al. (2004) argued that stress in the workplace does not reach burnout levels for the nurse as a factor influencing job satisfaction. They argue, also, that the satisfaction that nurses feel in their personal lives is correlated with job satisfaction and burnout. It was demonstrated that nurses who had low levels of job satisfaction and high levels of burnout also had moderate levels of satisfaction about their lives in general.

Nursing staff who reported high levels of life satisfaction, high levels of personal achievement and low emotional exhaustion usually did not work at night and, also, mentioned that they were happy with their professional position. Similar findings regarding work-related stress and satisfaction have been proven in supported by Yang and Baik (2016) and Nam et al. (2016) researches.

Safe working environment and Working Conditions

A safe working environment leads to a healthy working environment. A safe and healthy working environment includes the use of modern machinery, the logistical equipment and programmes for everyday clinical routine, as well as the psychological support and empowerment of nursing staff (Shirey, 2006).

The nursing team is motivated and becomes more creative in a healthy environment that meets the need for collegiality, for conflict avoidance, promotes good interpersonal relationships, prefers reconciliation and compromise, and protects employees from burnout (Hudson, 2008; Schmalenberg and Kramer, 2009).

Reasonable shift allocation, faire division of labour, licensing, efficiency bonuses, the facilitation and the provision of assistance to nurses by the nursing services by granting them educational leaves, have a very important impact on job satisfaction. The rational and impartial way the boss-leader manages these issues, and the fairness and honesty on his part are the basis for the team's commitment to achieving its visions and goals creating a healthy working environment (Kramer et al., 2010; Sherman et al., 2011).

Reward and Monetary Reward

The major categories of rewards are intrinsic, extrinsic, financial and non-financial (Bonenberger et al., 2014). It is worth to emphasize that behavior is a function of its consequences. Therefore, by enhancing positive comments, with moral reward, public visibility especially to young employees, morale is strengthened and a positive working environment is created (Greco et al., 2006).

Among the main elements that affect job satisfaction are the good working conditions, the relationship with co-workers, the in-job training opportunities, job security policy, and institution's overall policies. In addition, motivation, and lack of it, can affect employees' performance (Baron 1983). The attitudes dominating the employee-employer collaboration can edure employee rewarding (Hafiza et al., 2011). Rewards may be in the form of a good salary, bonuses, good facilities in the work environment, travel programs and holiday allowance increase the employees' job satisfaction and has a good effect on their job performance.

The need for advancement in the hierarchy of the nursing services needs to be supported and evaluated with feedback, trust and dialogue to avoid a competitive climate. People with innovative ideas, with love for progress, for knowledge and managerial skills in a healthy working environment are promoted and developed accordingly by the nursing service (Bailey, 2010). Boru et al. (2010) argue that professional development opportunities and work conditions play an important role in nurse satisfaction.

monetary remuneration Initially, was recognized as a factor of "occupational health" and not as an incentive. This means that salary is a factor to maintain constant job satisfaction, but this in itself will not give satisfaction. A possible increase in monthly wages will not necessarily help to increase the level of satisfaction (Ahlburg and Brown Mahoney, 1996). Low earnings and work intensity negatively affect job satisfaction (Stringer et al., 2011). A satisfactory salary is an important factor both in the job search process and in retaining employees and avoiding resignations (May et al., 2006). The main reasons why staff had low job

satisfaction were working the difficult job conditions and the low salaries (Bodur, 2002).

Conclusions: Job satisfaction can be affected by financial compensation, working environment and conditions, relations with colleagues and administration, and the nature of the job itself. Low job satisfaction has been linked to low quality of nursing services, ineffective care and negative patient outcomes. In order to have and retain satisfied nursing personnel, administration should implement the new leadership models and ways of ensuring the internal and external satisfaction.

References

- Abidakun, A., & Ganiyu, R. A. (2020). Linking Leadership Styles to Job Satisfaction: Perspective of Employees in the Nigerian Breweries Industry. Ilorin Journal of Human Resource Management, 4, 135-144.
- Acea-López L., Pastor-Bravo M.D.M., Rubinat-Arnaldo E., Bellon F., Blanco-Blanco J., Gea-Sanchez M., Briones-Vozmediano E.(2021). Burnout and job satisfaction among nurses in three Spanish regions. *J. Nurs. Manag.* 29:2208–2215. doi: 10.1111/jonm.13376
- Ahlburg, D. & Brown Mahoney, C. (1996). The effect of wages on the retention of nurses. *Canadian Economic Journal*, 29, \$126-\$129.
- Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J. A., Busse, R., Clarke, H., Giovannetti, P., Hunt, J., Rafferty, A. M. & Shamian, J. (2001). Nurses' reports on hospital care in five countries. *Health Aff (Millwood)*, 20, 43-53.
- Ali-Mohammadi F, Ramezani M (2017). Evaluate the effectiveness of job rotation system and its impact on employees' readiness for job rotation: case study of: Maskan Bank branches in the city of Tabriz. Int Rev (1–2):27–35. https://doi.org/10.5937/intrev1702027A
- Aloisio LD, Coughlin M, Squires JE. (2021). Individual and organizational factors of nurses' job satisfaction in long-term care: A systematic review. Int J Nurs Stud. 123:104073. doi: 10.1016/j.ijnurstu.2021.104073. Epub 2021 Aug 26. PMID: 34536909.
- Bailey, J. H. (2010). Career Motivation in Newly Licensed Registered Nurses: What Makes Them Remain? . *The Qualitative Report J.*, 15, 1489-1503.
- Baron A. (1983) Behavior in organization: Understanding and managing the human side of work. New York: Allyn & Bacon Inc; 1983..
- Bodur, S. (2002). Job satisfaction of health care staff employed at health centres in Turkey. *Occup Med (Lond)*, 52, 353-5.
- Borou, A., Bosniak, G., Yfantis, A., Tiniakou, I., Machairas, N., Tsiklitara, A., Papadimitriou, B., Sapountzi-Krepia, D. & Mouzas, O. (2010).

- Vocational employee satisfaction in health services. The special case of nurses. Medical annals of Northwest Greece, 6,1.
- Cavanagh, S. J. & Bamford, M. (1997). Substitution in nursing practice: clinical, management and research implications. *J Nurs Manag*, 5, 333-9.
- Cavanagh, S. J. (1996). A 'new' psychological contract for nurses: some management implications. *J Nurs Manag*, 4, 79-83.
- Cezar-Vaz MR, Xavier DM, Bonow CA, Vaz JC, Cardoso LS, Sant'Anna CF, Costa VZD, Nery CHC, Loureiro HMAM. (2022). Occupational Well-Being of Multidisciplinary PHC Teams: Barriers/Facilitators and Negotiations to Improve Working Conditions. Int J Environ Res Public Health. 29;19(23):15943. doi: 10.3390/ijerph192315943. PMID: 36498016; PMCID: PMC9737019.
- Connolly K, M., Myers J. E. (2011) Wellness and mattering: the role of holistic factors in job satisfaction. Journal of Employment Counselling 40, 14, 152-160, //doi.org/10.1002/j.2161-1920.2003.tb00866.x
- Dall'Ora C, Ball J, Reinius M, Griffiths P. (2020). Burnout in nursing: a theoretical review. Hum Resour Health. 18(1):41. doi: 10.1186/s12960-020-00469-9.
- Dor A. & Halperin O. (2022). Nurses' Job Satisfaction and Motivation: Patients' and Nurses' Perceptions. Journal of Biosciences and Medicines > Vol.10 No.6, June 2022Journal of Biosciences and Medicines > Vol.10 No.6, June 2022
- EFN Position Statement on Consequences of nurses shortages in public health (EFN GA October 2020) https://efn.eu/wp-content/uploads/EFN-Policy-Statement-on-Consequences-Nurses-Shortages-in-Public-Health-Nov.2020.pdf
- Gogos, B. X. & Petsetaki, E. (2011). Investigation of the professional satisfaction of the nursing staff in the hospital. The case of Naoussa General Hospital. Greek Journal of Nursing Science, 4, 15-34
- Greco, P., Laschinger, H. K. & Wong, C. (2006). Leader empowering behaviours, staff nurse empowerment and work engagement/burnout. *Nurs Leadersh (Tor Ont)*, 19, 41-56.
- Griffin M.A, Patterson M.G.and West M.A (2001). Job Satisfaction and Teamwork: The Role of Supervisor Support. Journal of Organizational Behavior. 22, 5, 537-550
- Hafiza N, Shah S, Jamseheed H, Zamam K. (2011). Relationship between rewards and employee motivation in the non-profit organization of Pakistan. *Business* intelligence Journal. 4(2):327–334.
- Hasselhorn, H. M., P. Tackenberg, A. Buescher, M. Simon, A. Kuemmerling and B. H. Mueller. (2005). Work and Health of Nurses in Europe, Results of the NEXT-Study. http://www.next-study.net> (downloaded on March 15, 2006).
- Hellín Gil MF, Ruiz Hernández JA, Ibáñez-López FJ, Seva Llor AM, Roldán Valcárcel MD, Mikla M,

- López Montesinos MJ. (2022). Relationship between Job Satisfaction and Workload of Nurses in Adult Inpatient Units. Int J Environ Res Public Health. 19(18):11701. doi: 10.3390/ijerph191811701. PMID: 36141970; PMCID: PMC9517381.
- Hudson, T. (2008). Delegation: building a foundation for our future nurse leaders. *Medsurg Nurs*, 17, 396-9, 412
- Kalisch B.J. & Kyung Hee Lee K.H. (2014) Staffing and job satisfaction: Nurses and nursing assistants. Journal of Nursing Management 22(4):465-71 DOI:10.1111/jonm.12012
- Kingma, M. (2007). Nurses on the move: a global overview. *Health Serv Res*, 42, 1281-98.
- Kourakos, M., Kafkia, Th., Rekleiti, M., Zyga, S., Kotrotsiou, E. & Gouva, M. (2012). A Study of job satisfaction of health care providers-nurses of pathology clinics of the National Health System Archives of Hellenic Medicine, 29, 61-69.
- Kramer, M., Schmalenberg, C. & Maguire, P. (2010). Nine structures and leadership practices essential for a magnetic (healthy) work environment. *Nurs Adm Q*, 34, 4-17.
- Laschinger, H. K. & Havens, D. S. (1997). The effect of workplace empowerment on staff nurses' occupational mental health and work effectiveness. *J Nurs Adm*, 27, 42-50.
- Liu Y, Aungsuroch Y, Yunibhand (2016). Job satisfaction in nursing: a concept analysis study. J.Int Nurs Rev. 63(1):84-91. doi: 10.1111/inr.12215.
- Lu H, Zhao Y, While A. (2019). Job satisfaction among hospital nurses: A literature review. Int J Nurs Stud. 94:21-31. doi: 10.1016/j.ijnurstu.2019.01.011. Epub 2019 Feb 10. PMID: 30928718.
- Mari, M., Alloubani, A., Alzaatreh, M., Abunab, H.,
 Gonzales, A., & Almatari, M. (2018).
 International Nursing: Job Satisfaction Among
 Critical Care Nurses in a Governmental Hospital
 in Saudi Arabia. Nursing Administration
 Quarterly, 42(3), E1-E9
- Maslach C., Leiter M. (2016). In: *Burnout*. Fink G., editor. Prensa Académica; London, UK: 2016. pp. 351–357.
- May, J. H., Bazzoli, G. J. & Gerland, A. M. 2006. Hospitals' responses to nurse staffing shortages. *Health Aff (Millwood)*, 25, W316-23.
- McNeese-Smith, D. K. (1999). The relationship between managerial motivation, leadership, nurse outcomes and patient satisfaction. Journal of Organizational Behavior, 20 (2), 243–259.
- Moumtzoglou A. (2010). The Greek Nurses' job satisfaction scale: development and psychometric assessment. J Nurs Meas. 2010;18(1):60-9. doi: 10.1891/1061-3749.18.1.60. PMID: 20486478.
- Muwanguzi E. (2022). Job Satisfaction: A Literature Review. Journal of Research in Humanities and Social Science Volume 10 ~ Issue 10 pp: 165-172
- Nam, S. J., Chun, H. J., Moon, J. S., Park, S. C., Hwang, Y. J., Yoo, I. K., Lee, J. M., Kim, S. H.,

- Choi, H. S., Kim, E. S., Keum, B., Jeen, Y. T., Lee, H. S. & Kim, C. D. (2016). Job Stress and Job Satisfaction among Health-Care Workers of Endoscopy Units in Korea. *Clin Endosc*, 49, 266-72
- Ozdoba P, Dziurka M, Pilewska-Kozak A, Dobrowolska B. (2022). Hospital Ethical Climate and Job Satisfaction among Nurses: A Scoping Review. Int J Environ Res Public Health. 10;19(8):4554. doi: 10.3390/ijerph19084554. PMID: 35457422; PMCID: PMC9027856.
- Pérula C., Pérula de Torres L.A., García C., Pérula de Torres C.J., Vaquero Abellán M. (2016). Mindfulness nursing in primary care and its relationship with work-related stress. NURE Investig. 14:1–9 (in Spanish).
- Platis C, Ilonidou C, Stergiannis P, Ganas A, Intas G. (2021). The Job Rotation of Nursing Staff and Its Effects on Nurses' Satisfaction and Occupational Engagement. Adv Exp Med Biol. 1337:159-168. doi: 10.1007/978-3-030-78771-4_18. PMID: 34972902.
- Poghosyan L, Liu J, Shang J, D'Aunno T. (2017).

 Practice environments and job satisfaction and turnover intentions of nurse practitioners:

 Implications for primary care workforce capacity.

 Health Care Manage Rev. 2017

 Apr/Jun;42(2):162-171. doi: 10.1097/HMR.00000000000000094. PMID: 26587998.
- Prayoga Setia Darma Achmad Sani Supriyanto (2017). The Effect Of Compensation On Satisfaction And Employees Performance. Management and Economics Journal 1(1):66 DOI:10.18860/mec-j.v1i1.4524
- Rivai, V. (2006). Human Resource Management for Companies from Theory to Practice. Jakarta. Pt. Raja Grafindo Persada
- Rocha GSA, Andrade MS, Silva DMRD, Terra MG, Medeiros SEG, Aquino JM. (2019). Feelings of pleasure of nurses working in primary care. Rev Bras Enferm. 19;72(4):1036-1043. English, Portuguese. doi: 10.1590/0034-7167-2018-0518. Erratum in: Rev Bras Enferm. 2019 Dec;72(suppl 3):369. Andrade, Sandra Maria de [Andrade, Maria Sandra de]. PMID: 31432963.
- Sapountzi-Krepia D, Zyga S, Prezerakos P, Malliarou M, Efstathiou C, Christodoulou K, Charalambous G. (2017). J Nurs Manag. 25(1):13-21. doi: 10.1111/jonm.12418. Epub 2016 Aug 23. PMID: 27550236

- Schmalenberg, C. & Kramer, M. (2009). Nursephysician relationships in hospitals: 20,000 nurses tell their story. *Crit Care Nurse*, 29, 74-83.
- Sherman, R. O., Schwarzkopf, R. & Kiger, A. J. (2011). Charge nurse perspectives on frontline leadership in acute care environments. *ISRN Nurs.*, 164052.
- Shirey MR.(2016). Authentic leaders creating healthy work environments for nursing practice. Am J Crit Care.15(3):256-67. PMID: 16632768.
- Smerek, R.E., & Peterson, M. (2007). Examining Herzberg"s theory: Improving job satisfaction among non-academic employees at a university.Research in Higher Education, 48(2), 229-250.
- Sobia Shujaat, Amir Manzoor, Nadeem A. Syed (2014) Impact of Team Work on Employee Satisfaction.
 - DOI:10.46745/ilma.jbs.2014.10.02.06
- Syahreza D.S., Lumbanraja P, Dalimunthe R.F.
 Absah Y. (2017). Compensation, Employee Performance, and Mediating Role of Retention: A
 Study of Differential Semantic Scales European Research Studies Journal Vol XX, Iss 4A, 151-159
- Tamata AT, Mohammadnezhad M. A. (2022). systematic review study on the factors affecting shortage of nursing workforce in the hospitals. Nurs Open. 2023 Mar;10(3):1247-1257. doi: 10.1002/nop2.1434. Epub 2022 Oct 27. PMID: 36303066; PMCID: PMC9912424
- The NNU Report, (2022). Nursing Shortage or Exodus? *AJN*, *American Journal of Nursing* 122(3):p 12-13, March 2022. | *DOI*: 10.1097/01.NAJ.0000822928.1677 4 9a
- Tovey EJ, Adams AE. (1999). The changing nature of nurses' job satisfaction: an exploration of sources of satisfaction in the 1990s. J Adv Nurs. 30(1):150-8. doi: 10.1046/j.1365-2648.1999.01059.x. PMID: 10403991.
- WHO (2022). Health and care workforce in Europe: time to act. Copenhagen: WHO Regional Office for Europe; Licence: CC BY-NC-SA 3.0 IGO.
- Yang, Y. J. & Baik, G. H. (2016). Now, It Is Time to Consider Job Stress in the Field of Gastroenterology. Clin Endosc, 49, 209-11.