



REVIEWS

Job satisfaction among pre-hospital staff, a scoping review

La satisfacción laboral de los trabajadores de emergencias pre-hospitalarias, revisión panorámica

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ABSTRACT:

Background: Job satisfaction among healthcare workers is now another indicator of the quality of care provided to users.

Aim: The aim of this scoping review was to identify definitions and instruments to measure job satisfaction in the field of pre-hospital emergencies.

Methods: A scoping review guided by Arksey and O'Malleys methodological framework was conducted. From the PCO (Participants: prehospital emergency staff (including doctors, nurses, technicians, paramedics, physicians)/ Concept: job satisfaction/ Outcomes: definitions and measure methods), MeSH terms were searched in six databases including PubMed/ Medline, Scopus, WoS, Doaj, Dialnet y JBI systematically since 2015 to 20/03/2023.

Results: Out of 323 citations, 16 matched inclusion criteria. Of these studies, only seven describe the meaning of job satisfaction. And only eight explain the measurement instrument, setting out the questions that comprise it and the aspects that are recorded.

Conclusion: Considering the relationship between healthcare professionals and their work from a comprehensive perspective in the prehospital emergency setting is of paramount importance in providing quality healthcare.

Keywords: Job satisfaction; Emergency Medical Services; Emergency Medicine; Surveys and Questionnaires.

RESUMEN:

Resumen:

Introducción: La satisfacción laboral de los trabajadores de instituciones sanitarias es en la actualidad un indicador más de la calidad asistencial prestada a los usuarios.

Objetivo: El objetivo de esta revisión fue identificar las definiciones y los instrumentos de medida de satisfacción laboral en el ámbito de las emergencias prehospitalarias.

Método: Se realizó una revisión siguiendo la metodología diseñada por Arksey y O'Malleys. A partir de PCO (participantes: personal de emergencias prehospitalarias incluyendo médicos, enfermeros, técnicos, paramédicos y fisicians) / Concept: satisfacción laboral/ Outcomes: definiciones y métodos de medida) se seleccionaron los términos MeSH para realizar una búsqueda sistemática en las bases de datos: PubMed/ Medline, Scopus, WoS, Doaj, Dialnet y JBI entre 2015 a 20/03/2023.

Resultados: De 323 resultados, 16 cumplieron los criterios de inclusión. De estos trabajos solo 7 describen el significado de satisfacción laboral. Y solo 8 explican el instrumento de medida exponiendo las preguntas que lo constituyen y los aspectos que se registran.

Conclusión: Considerar la relación entre el profesional sanitario y su actividad laboral desde una perspectiva integral en el entorno de las emergencias prehospitalarias es de magna importancia en la prestación de atención sanitaria de calidad.

Palabras clave: Satisfacción laboral; Servicios Médicos de Urgencias; Medicina de Emergencias; Encuestas y cuestionarios.

INTRODUCTION

The work of healthcare professionals, and specifically those who assist in pre-hospital emergencies, is characterised by a high degree of technical specialisation in knowledge and skills, which, combined with constant customer service, unpredictable situations, current working conditions and the demands of healthcare organisations, determines the relationship between the professional and their job^(1,2), which can lead to the development of an active and constructive attitude or, conversely, a passive and destructive attitude towards work, colleagues and the organisation⁽³⁾.

Currently, there are two models of pre-hospital systems worldwide. The paramedic model: Emergency Medical System (EMS) of the United States of America and is characterised by protocolised care provided by paramedics supervised remotely by doctors from referral hospitals. The French or European model (SAMU) of urgent medical assistance, where the out-of-hospital care team, made up of qualified health professionals, will continue to provide emergency care at the hospital⁽⁴⁾. Based on these two models, each country has adapted a specific emergency care system. For example, the Spanish model distinguishes between basic resources, consisting of emergency medical technicians, and advanced resources, consisting of healthcare professionals (doctors and nurses) and technicians⁽⁵⁾. Therefore, regardless of the pre-hospital care model adopted, there is a wide variety of professional categories involved in this field: doctors, nurses, emergency medical technicians, paramedics, among others.

A constant feature of healthcare organisations, including those that provide emergency assistance services, is the provision of quality healthcare services. Despite the lack of consensus on its definition, the Institute of Medicine of the United States National Academy of Sciences considers it to be "the degree to which health services for individuals and populations increase the likelihood of achieving optimal health outcomes consistent with current professional knowledge," thus pursuing excellence⁽⁶⁾. Traditionally, the quality of healthcare services has been measured by evaluating the user's experience with the care service^(7,8). However, the job satisfaction of healthcare

professionals determines the quality of care they provide and, consequently, user satisfaction^(2,9).

When job satisfaction began to be studied, it was believed that it depended solely on salary, as Taylor stated in 191⁽¹⁰⁾. Later, in 1935, Happock published the first study that analysed job satisfaction in depth, establishing that it was part of overall life satisfaction and was related to the individual's ability to adapt, their communication skills and their self-perception of their job performance^(10,11). However, it was not until the 1960s and 1970s that job satisfaction was studied more widely in both the United States and Europe with the aim of humanising work environments⁽¹²⁾.

Therefore, job satisfaction is considered a personal dimension⁽¹⁰⁾ and an indicator of working life^(10,13) that can be analysed through direct and indirect methods^(1,13). Direct methods attempt to analyse attitudes expressed through direct closed questions. Indirect methods are based on the analysis of work experience with good or bad memories⁽²⁰⁾. There are also several questionnaires and scales for recording workers' job satisfaction^(1,2,10,13,14).

The objective of this study was to describe the conceptualisation of job satisfaction, as well as the instruments used to measure it in the field of pre-hospital emergencies, through a scoping review.

MATERIALS AND METHODS

The methodology designed by Arksey and O'Malley⁽¹⁵⁾, was followed which includes five steps: (a) identifying the research question, formulating the research question concisely and clearly, (b) identifying relevant studies, conducting an exhaustive search of various databases, (c) selecting articles based on specified selection criteria and meticulously documenting them, (d) mapping data, organising information systematically, (e) compiling, summarising and writing up the data for the development of scoping reviews, synthesising the relevant information.

The project was registered on the Open Science Framework (OSF) website on 17 July 2022. <https://osf.io/havw9/>

Step A: Research question

1. How is job satisfaction defined in pre-hospital emergencies?
2. What instruments are used to quantify job satisfaction in the pre-hospital setting?

Step B: Identification of relevant studies

Based on PCO (participants: prehospital emergency staff (including doctors, nurses, technicians, paramedics, physicians) / concept: job satisfaction/ outcomes: definitions and measurement methods) from the structured question in the review, MeSH terms were searched to create a single search equation for the databases: PubMed, Scopus, Web of Science, Joanna Briggs Institute evidence synthesis, Doaj and Dialnet.

However, due to the scarcity and inconsistency of documents, several specific search equations were developed for each search database to obtain a greater number of documents related to the objective. Table 1 show the search equations for the electronic databases.

Table 1. Database and search equations.

Database	Search Equation
PubMed	“Job Satisfaction” [Mesh] AND “Emergency Medical Service” [Mesh] NOT “Emergency Service, Hospital” [Mesh]
Scopus	job AND satisfaction AND emergency AND medical AND service OR prehospital AND emergency AND center OR emergency OR medical AND technicians OR paramedics
Web of Science	“Job Satisfaction” AND “Emergency Medical Service” NOT “Emergency Service, Hospital”
Doaj	Job Satisfaction AND Emergency Medical Service
JBI Evidence Synthesis	Job Satisfaction AND Emergency Medical Service
Dialnet	Job Satisfaction AND Emergency Medical Service OR Prehospital Emergency Service

Step C: Selection of studies

Articles published in English or Spanish from 2015 to 20/03/2023, were included where the aim were to study job satisfaction, regardless of whether this was the sole objective or part of the research objectives, using some form of measurement tool. The study samples had to consist of more than 80 professionals in the field of pre-hospital or out-of-hospital emergencies.

Documents analysing job satisfaction in professionals from other healthcare fields were excluded, as were those studying satisfaction with specific processes or pathologies. Qualitative research and systematic reviews were also excluded.

The Mendeley bibliographic manager was used for the management, sharing and identification of duplicate articles.

Two researchers independently carried out an initial selection of documents using search strategies based on the title and abstract. Subsequently, adopting the eligibility criteria, they identified the articles that could be reviewed in full text. Discrepancies were resolved without the need for a third reviewer by presenting and discussing arguments and agreeing on the final documents to be included. Simultaneously and independently, expert researchers reviewed 10% of the articles to ensure the validity of the selection process.

The selected articles were evaluated using the Joanna Briggs Institute appraisal tools to assess methodological quality and identify possible biases (Table 2).

Tabla 2. JBI Critical appraisal tools: analytical cross sectional studies.

Article Authors	1.Were the criteria for inclusion in the sample clearly defined?	2.Were the study subjects and the setting described in detail?	3.Was the exposure measured in a valid and reliable way?	4.Were objective, standard criteria used for measurement of the condition?	5.Were confounding factors identified?	6.Were strategies to deal with confounding factors stated?	7.Were the outcomes measured in a valid and reliable way?	8.Was appropriate statistical analysis used?
Carrillo García C, Ríos Risquez M, et al.	✓	✓	✓	✓	Unclear	Unclear	✓	✓
Galvalisi N, et al.	✗	✓	✓	✓	Unclear	Unclear	✓	✓
Venesoja A, et al.	✓	✓	✓	✓	Unclear	Unclear	✓	✓
Chegini N, et al.	✓	✓	✓	✓	Unclear	Unclear	✓	✓
Basabr M, et al.	✗	✓	✓	✓	✓	✓	✓	✓
Dopelt K, et al.	✗	✓	✓	✓	Unclear	Unclear	✓	✓
San I.	✓	✓	✓	✓	Unclear	Unclear	✓	✓
Rojas R, et al.	✗	✓	✓	✓	Unclear	Unclear	✓	✓
Carmo de Oliveira H, et al.	✗	✓	✓	✓	Unclear	Unclear	✓	✓
Mantas Jiménez S, et al.	✓	✓	✓	✓	Unclear	Unclear	✓	✓
Almeida de Moura A, et al.	✓	✓	✓	✓	Unclear	Unclear	✓	✓
Iorga M, et al.	✗	✓	✓	✓	Unclear	Unclear	✓ (2 of 3)	✓
Eiche C, et al.	✗	✓	✗	✓	Unclear	Unclear	✓	✓
Almeida de Moura A, et al (2020)	✓	✓	✓	✓	Unclear	Unclear	✓	✓
Alfaleh A, et al.	✓	✓	✓	✓	Unclear	Unclear	✗	✓
Stefurak T, et al.	✓	✓	✓	✓	Unclear	Unclear	✓	✓

Step D: Data mapping

For the extraction and synthesis of information, a table was created to collect relevant data: authors and year of publication, article title, country, objective, type of study, characteristics of the study sample (sample size, mean age, gender, length of service), data collection period, theoretical approach to the concept of job satisfaction, measurement instrument used, and main results (Table 3).

Table 3. Variables extracted

Author and publication year	Article title	Country	Aim	Study type	Sample characteristics				Date data was collected	Job satisfaction concept (Theoretical approach)	Measurement methods	Main outcomes
					Size	Mean age	Gender	Worked Years				
Carrillo García C, et al. 2015	Job satisfaction among nurses working in mobile emergency units in the Region of Murcia	Spain	To analyse the job satisfaction of nursing professionals in the UMEs of the Region of Murcia	Quantitative, descriptive Observational cross-sectional study	85	31-50	F: 54.5% M: 45.5	-	February-April 2013	Set of emotions and attitudes that a person experiences towards their work	NTP 394: Job satisfaction	The most highly valued aspects are relationships with colleagues, working hours and stability. The least valued aspects are promotion opportunities, salary, attention to suggestions and the management model
Galvalisi et al. 2022	Emergency department physicians' job satisfaction in the Argentine Republic during the COVID-19 pandemic	Argentina	To determine job satisfaction.	Descriptive cross-sectional study	187	42	F: 112 M: 75	-	November 2020	The general attitude of an individual towards their work	Abbreviated version of the Minnesota Satisfaction Questionnaire (MSQ) in Spanish	32% of participants report low J.S., 46% of whom are on-call doctors
Venesoja A, et al. 2021	Exploring safety culture in the Finnish ambulance service with EMS 1 Safety-Attitudes Questionnaire	Finland	To describe the psychometric properties of the SSAQ in an emergency medical service in Finland.	Cross-sectional study	333	26-30: 28.57% 31-35: 26% 36-40: 19.41% 41-45: 10.99% >46: 6.59%	F: 49.69% M: 50.31%	6-10: 34.56% 11-15: 16.20% >15: 51 15.60%	19 December to 20 January	Results of employee wellbeing and patient safety.	Emergency Medical Services Safety Attitudes Questionnaire (EMS-SAQ)	Direct relationship between educational level and J.S. Having more than one job is associated with low job satisfaction (p = 0.008)

Author and publication year	Article title	Country	Aim	Study type	Sample characteristics				Date data was collected	Job satisfaction concept (Theoretical approach)	Measurement methods	Main outcomes
					Size	Mean age	Gender	Worked Years				
Chegini N, et al. 2022	Investigating the role of predictive death anxiety in the job satisfaction of prehospital emergency personnel during the COVID-19 pandemic	Iran	Determining the prediction between death anxiety and job satisfaction in pre-hospital emergency personnel during COVID-19	Descriptive analytical cross-sectional study	198	33.14±6.77	M 167 F 31	-	21 January-22 August	This is the result of an individual's attitudes towards their work	-Minnesota's job satisfaction questionnaire (MSQ) abbreviated version:	Job satisfaction level: 55.07+11.50 Higher academic qualifications and higher economic status lead to higher J.S.
Basabr M, et al. 2018	Comparing job satisfaction among pre-hospital and hospital emergency nurses in Mashhad, Iran	Iran	Comparing job satisfaction between hospital and pre-hospital nurses	Cross-sectional analytical study	232	31-40	PH: 115 M M: 117 where 46 M 71 F	PH: +5 years H: 11-15 years	2017	Individual attitude towards work	The Brayfield-Rothe's Questionnaire	No significant differences were found in J.S. SL in both groups was moderate
Dopelt K, et al. 2019	Factors that affect Israeli paramedics' decision to quit the profession: a mixed methods study	Israel	Identify personal and organisational factors related to job abandonment in pre-hospital care	Mixed study with questionnaire and in-depth interview	333	33.8±7.3 years dropout		Average of 3 years	September-November 14	Online questionnaire developed in-house using a 5-point Likert scale In-depth interview	Only 24% expressed satisfaction with work related to saving lives. Work-life balance was also highly valued. However, limited promotion opportunities, salary, working conditions and shifts were the least valued aspects	

Author and publication year	Article title	Country	Aim	Study type	Sample characteristics				Date data was collected	Job satisfaction concept (Theoretical approach)	Measurement methods	Main outcomes
					Size	Mean age	Gender	Worked Years				
San I. 2019	The factors affecting job satisfaction of Emergency Medical Service Professionals in Ankara	Turkey	Determine J.S. in EMS professionals and describe the factors associated with it	Mixed quantitative and qualitative study	781	31±6.3 years	M37% F: 63%	7.5±4.5 years	September to November 18.	Individual emotional response to work	MSQ Open-ended questions	Older males reported high confidence linked to high J.S.
Rojas R, et al. 2022	Coping in the Emergency Medical Service: associations with personnel stress, self-efficacy, job satisfaction and health	Germany	Describe EMS personnel's strategies for health and well-being	Cross-sectional study	106	Aged 18 to 61	M: 63.2% F: 36.8%	From 1 month to 35 years	-	-	German Michigan Organizational Assessment Questionnaire	The greater the sense of well-being, the greater the J.S.
Carmo de Oliveira H, et al. 2022	Team climate and job satisfaction in a Mobile Emergency Care Service	Brazil	Identifying the work climate and job satisfaction at SAMU	Quantitative study	95	44±9.2 years	M: 63.2% F: 36.8%	7.9±5.6 years	July to September 21	It is a subjective, personal, and emotional state that can be modified by internal, external, or both factors.	Job Satisfaction Scale-S20/23 (JSS-S20/23)	

Author and publication year	Article title	Country	Aim	Study type	Sample characteristics				Date data was collected	Job satisfaction concept (Theoretical approach)	Measurement methods	Main outcomes
					Size	Mean age	Gender	Worked Years				
Mantas Jiménez S, et al. 2022	Resilience and job satisfaction among out hospital emergency medical service professionals: a cross-sectional multi-centric study	Spain	To describe J.S. and compare levels of resilience among pre-hospital emergency professionals in Catalonia, Spain.	Cross-sectional study	406	38.2±7.5 years	M: 66.3% F: 33%	-	September to October 17	Overall job satisfaction	Ask a question on a Likert scale from 1 to 5, with the latter being completely satisfied	331/406 say they are satisfied
Almeida de Moura A, et al. 2021	Job satisfaction of nursing technicians in prehospital care: an analytical observational study	Brazil	Assessing J.S. in Mobile Emergency Services and investigating its possible association with demographic aspects	Cross-sectional observational study	155	39.26±8.14 years	M: 60 (38.71%) F: 95 (61.29%)	6.16±3.69 years	April to August 17	Assessment of work experience based on individual attitudes, beliefs and feelings derived from work	The Job Satisfaction Survey (JSS)	Positive aspects: type of work and relationships Negative aspects: salary and shift work
Iorga M, et al. 2015	Burnout syndrome among public ambulance staff	Romania	To determine the relationship between J.S., alexithymia, shifts, gender and burnout syndrome in ambulance staff	-	122	-	M: 60 F: 62	Two levels -1 to 15 years -16 to 35 years	-	-	Issues regarding remuneration and promotion. Leadership. Interpersonal relationships. Organization and communication.	Low J.S. and high alexithymia and >16 years of service are associated with high levels of burnout

Author and publication year	Article title	Country	Aim	Study type	Sample characteristics				Date data was collected	Job satisfaction concept (Theoretical approach)	Measurement methods	Main outcomes
					Size	Mean age	Gender	Worked Years				
Eiche C, et al. 2021	Job satisfaction and performance orientation of paramedics in Germany's emergency medical service a nationwide survey	Germany	Statistically analyse J.S. and predict the factors related to job dissatisfaction among EMS paramedics in Germany	Cross-sectional study	2590	18 1152 31-40: 722 41-50: 504 51-70: 208	M: 2,079 F: 508	0-5: 899 6-15: 851 ≥16: 833	Autumn 17	-	The job satisfaction questionnaire by Neuberger and Allerbeck	Positive aspects: type of work and relationships with colleagues Negative aspects: salary and relationship with management
Almeida de Moura A, et al. 2020	Leadership and job satisfaction in the mobile emergency care service context	Brazil	To evaluate the relationship between the coordinator's leadership and job satisfaction in the mobile emergency care service	Descriptive study	115		M: 63 F: 103		April to August 2017		Job Satisfaction Survey (JSS)	The coordinator's leadership correlates positively with J.S.

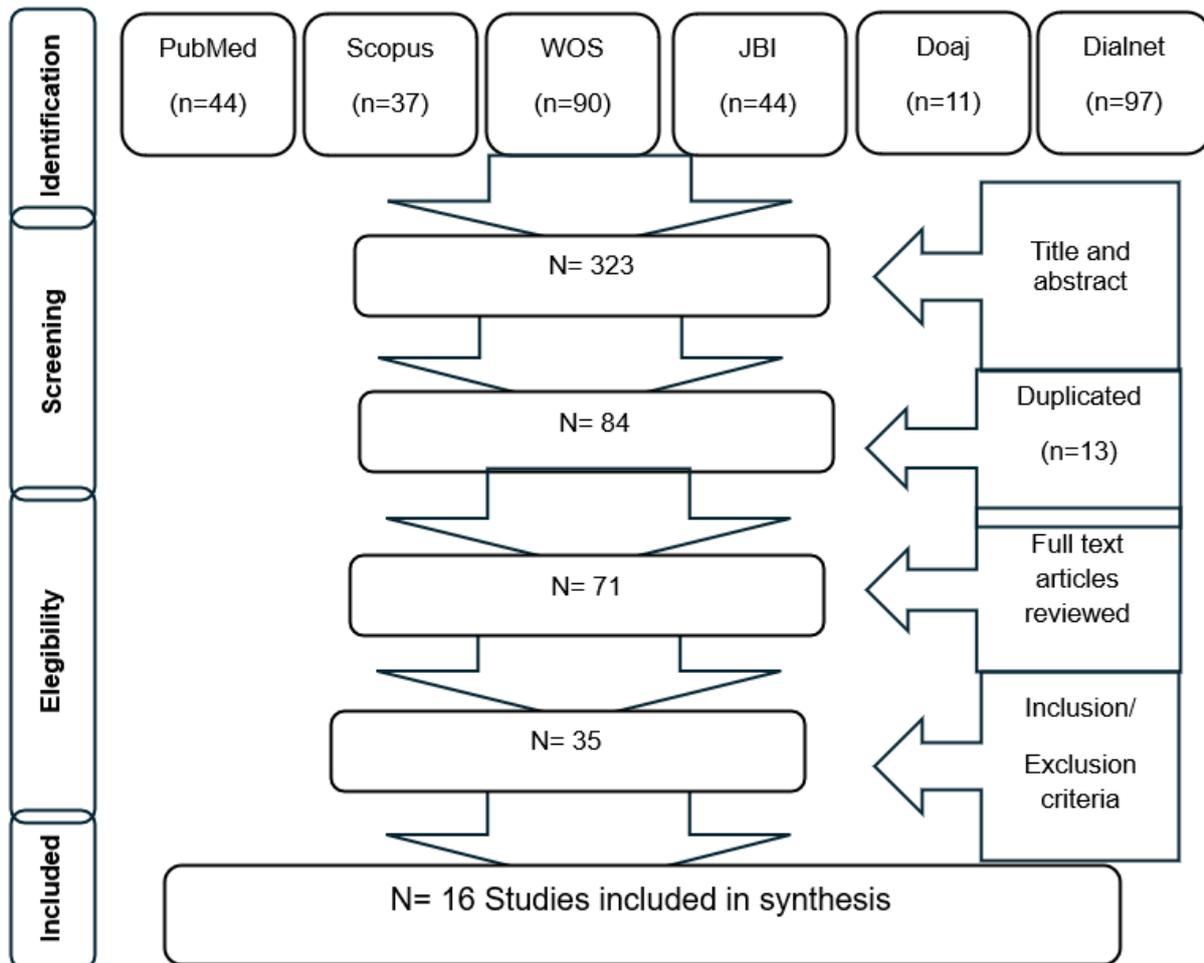
Author and publication year	Article title	Country	Aim	Study type	Sample characteristics				Date data was collected	Job satisfaction concept (Theoretical approach)	Measurement methods	Main outcomes
					Size	Mean age	Gender	Worked Years				
Alfaleh A, et al. 2021	Onsite versus remote working: the impact on satisfaction, productivity and performance on medical call center workers	Saudi Arabia	To determine the differences in J.S., productivity and exercise between receiving emergency calls onsite or remotely	Observational cross-sectional study	124 physicians only: 77 onsite and 47 offsite	43.17±8.4 years	M: 70% F: 30%	1.44±0.97 years	December 20 to April 21	Outcome of work experience, which may be positive or negative	Likert scale questionnaire (1-5) about work, support from superiors, autonomy, productivity, etc.	On-site workers showed greater satisfaction with the nature of the work, support from superiors, productivity, and job performance. On-site workers expressed dissatisfaction with their workload, lack of space, and lack of prior training
Stefurak T, et al. 2020	The relationship of public service motivation to job satisfaction and job performance of emergency medical services professionals	U.S.A.	To determine the job satisfaction and motivations of emergency medical services workers	Cross-sectional study	1403	-	M:81% F:19%	-	15 September	-	The satisfaction scale was based on four items from Naff and Crum (1999) and five items from Vandenberg (2009) (PSM scale and job performance)	A positive relationship is observed between self-sacrifice motivation and J.S.

Step E: Compilation, summary and drafting of data. (Results section)

RESULTS

Based on the eligibility criteria and following discussion by the researchers, 16 articles were selected to meet the objective of the review.

Figure 1. Scoping review flowchart.



1. Definition of job satisfaction in the prehospital emergency care profession

Seven of the sixteen selected articles define job satisfaction:

The works of Basabr, Mantas Jiménez, Almeida de Moura, and Alfaleh agree on the concept of job satisfaction as the attitude and emotions related to work^(16,17,18,19,20).

The studies by Chegini and San specify that job satisfaction is closely linked to human needs, being a physical, psychological, and emotional response to work and including various facets such as camaraderie, promotion, and salary, which respond to physical, psychological, and social needs^(21,22).

However, Galvalisi et al. consider aspects such as mental challenge, rewards, working conditions, and interpersonal relationships with colleagues and superiors to be important elements that influence a person's attitude towards their work⁽²³⁾.

2. Instruments for measuring job satisfaction in the pre-hospital emergency care setting

Eight of the selected studies explain the measurement instrument used to quantify job satisfaction, considering the number of questions it contains and setting out the aspects it records.

The Venesoja study uses the EMS-SAQ questionnaire, which considers job satisfaction (with five questions) among other aspects such as safety, management, equipment, working conditions, and stress⁽²⁴⁾.

The research by Basabr, Iorga, Stefurak and Rojas uses the following instruments: Brayfield-Rothes Q., work satisfaction survey, Naff, Crum and Vandenabeele, and German Michigan Assessment Questionnaire, respectively, in which there is a lack of information regarding the length and/or content of the questionnaires^(16,25,26,27).

The research by Dopelt, San and Alfaleh are mixed studies combining qualitative and quantitative designs^(20,22,28). From a specific perspective, Mantas Jiménez formulates a single question rated on a Likert scale from 1 to 5 about overall satisfaction, which does not come from a validated measurement instrument and does not allow the individual to explain the reasons for such a rating⁽⁵⁾.

The MSQ^(21,22,23) and JSS^(18,19) questionnaires consider the type of work performed. In addition, the latter also considers items related to communication. Table 3 summarises the information from the questionnaires reviewed.

Table 3. Job satisfaction measurement tools.

Measure tool	Number of questions	Items assessed	Charateristics
NTP 394 ⁽¹⁾	15	Intrinsic factors (freedom, recognition, responsibility, autonomy, accountability, promotion, variety of tasks) Extrinsic factors (physical condition, relationships with colleagues, superiors and management, salary, shift work and job stability)	Likert scale from 1 (strongly disagree) to 7 (strongly agree). The higher the score, the greater the satisfaction.
MSQ ⁽²¹⁻²³⁾	20	1 Salary system 2 Type of tasks 3 Promotion opportunities 4 Organisational climate 5 Type of leadership 6 Physical condition	Likert scale from 1 (strongly disagree) to 5 (strongly agree). The higher the score, the greater the satisfaction. Score < 50 indicates low SL.

Measure tool	Number of questions	Items assessed	Charateristics
EMS-SAQ ⁽²⁴⁾	5	Seguridad laboral, tipo de dirección, clima laboral, condiciones laborales y estrés	Escala Likert de 5 puntos
Brayfield-Rothe`s Q ⁽¹⁶⁾	19	-	Escala likert entre 1 (muy desacuerdo) y 5 (muy de acuerdo)
MOAQ (german versión) ⁽²⁷⁾	-	-	-
JSS-S20/23 ⁽²⁹⁾	20	Job security, management style, work environment, working conditions and stress	5-point Likert scale
JSS ^(18,19)	36	Salary, promotion opportunities, relationship with superiors, rewards, productivity, procedures performed, relationships with colleagues, and communication aspects	Likert scale between 1 (strongly disagree) and 6 (strongly agree). Scores < 108 indicate dissatisfaction
JSQ ⁽²⁵⁾	-	Remuneration and promotion opportunities, leadership style, interpersonal relationships, organisational and communication aspects	-
Neuberger and Allerbeck JSQ ⁽³⁰⁾	79	Relationship with colleagues and superiors, work activity and working conditions, organisational and management issues, development and promotion opportunities, and salary	-
JSQ by Naff and Crum (1999) and Vandenabeele (2009) ⁽²⁶⁾	9	-	-
Survey and deep interviews ⁽²⁸⁾	-	-	-
Questionnaire and open-questions ⁽²⁰⁾	-	Includes aspects such as nature of work, supervisor support, autonomy, productivity, professional performance	-
One Likert question ⁽¹⁷⁾	1	Overall JS	-

DISCUSSION

In the selected studies, job satisfaction is defined in very heterogeneous ways. A significant group of these studies adopt the broadest, most general and neutral definition of job satisfaction as the attitude and emotions related to work^(1,16,17,18,19,20). However, other authors, such as Chegini and San, understand human beings from a holistic perspective, considering the physical, psychological and emotional spheres that may arise from the interaction between the worker and their job^(21,22). Furthermore, as established by Carmo et al., this interaction is dynamic, as it can be modified over time by internal or external factors, or both⁽²⁹⁾.

This conceptual heterogeneity coincides with what is described in Thielmann's reviews, which note a wide variety of definitions and theoretical frameworks in job satisfaction^(31,32).

With regard to measurement instruments, and given the objective of the review, it is considered that in a considerable number of articles there is a lack of information regarding the length of the instrument^(20,25,26,28) as well as the description or definition of the dimensions that are quantified^(16,23,24,26,27,28).

The length of a questionnaire is a fundamental aspect. On the one hand, it must effectively cover the measurement objective, on the other hand excessive length can lead to ineffective recording of information due to respondent fatigue.

With regard to the content of the questionnaires and considering that the studies focus their samples on pre-hospital emergency professionals, it is necessary to point out the absence of assessment in: technical competencies (job requirements, initial and continuing training, technical skills, type and variety of work performed) and non-technical competencies (leadership within the care team, teamwork, verbal and non-verbal communication skills, empathy, resilience) that are fundamental to providing quality care.

This scoping review provides a general view of job satisfaction in the pre-hospital emergency setting, allowing us to identify some gaps in its conceptualisation, as well as the tools used to quantify it. Our study has several limitations: language publication bias, exclusion of grey literature, and the fact that our results are descriptive in nature and we have been unable to issue or establish specific recommendations.

CONCLUSIONS

In conclusion, it is essential that both the definition of job satisfaction and the aspects of its quantification are considered from a comprehensive perspective, since the relationship between the individual and their work activity will have physical, psychological and emotional effects that are decisive in the healthcare professional-patient relationship. This study identifies this gap in the field of pre-hospital emergencies, and therefore the research team considers that it would be very beneficial to develop and validate a specific questionnaire considering the technical and non-technical skills required for pre-hospital care.

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