ORIGINAL ARTICLE

WILEY

Social support and job satisfaction in nursing staff: Understanding the link through role ambiguity

Alejandro Orgambídez PhD[1] | Helena Almeida PhD[2] | Yolanda Borrego PhD[3]

[1]Department of Social Psychology, University of Málaga, Málaga

[2]Faculty of Economics, University of Algarve, Faro, Portugal

[3]Department of Social and Educational Psychology, University of Huelva, Huelva, Spain

Correspondence
Alejandro Orgambídez, PhD, Departament of Social Psychology, Faculty of Psychology, University of Málaga, Campus de Teatinos s/n, Málaga, 29071, Málaga, Spain.
Email: aorgambidez@uma.es

Abstract

Aim: This study aimed to analyse the mediator effect of role ambiguity between social support from supervisor and colleagues and job satisfaction in Portuguese nursing staff.

Background: Few studies have analysed the processes through which social support increases job satisfaction in the nursing context.

Design: A cross-sectional design using questionnaires.

Method: A total of 124 registered nurses and 130 certified nursing assistants participated in the study. Mediation analysis was performed by calculating percentile confidence intervals (10,000 resamples).

Results: Mediation analysis revealed a partial mediation between social support and job satisfaction through role ambiguity. The direct effect was greater in the case of supervisor support.

Conclusions: Social support is a crucial resource in the nursing work context with a beneficial effect on well-being (e.g. reducing role stress) and job satisfaction.

Implications for Nursing Management: Managers of hospitals and health units can establish the organizational bases to facilitate this process, considering the importance of the role of the supervisors and colleagues in the provision of high levels of instrumental and socio-emotional support.

KEYWORDS
job satisfaction, nursing staff, occupational stress, role, social support

1 | BACKGROUND

Job satisfaction is one of the main concerns of administrators and researchers in the nursing context, given its beneficial effects both on the quality of work life and on the quality of services and care of health organizations (Lu et al., 2019). One of the main determining factors of job satisfaction in the nursing context is social support (Bagheri Hossein Abadi et al., 2021; Blanco-Donoso et al., 2019; Ghanayem et al., 2020; Modaresnezhad et al., 2021; Pérez-Fuentes

et al., 2020). However, few studies have analysed the processes through which social support increases satisfaction levels in a nursing context. Our study suggests that the relationship between social support provided by supervisors and colleagues may be mediated by role ambiguity (Blanco-Donoso et al., 2019; Ghanayem et al., 2020). Role ambiguity is an important psychosocial stressor at work and is defined as the lack of clarity and information about the functions, responsibilities, and tasks related to the position (Cenzig et al., 2021). Several studies have identified that role ambiguity has a negative effect on

job satisfaction: higher levels of role uncertainty have been associated with higher job dissatisfaction (Cenzig et al., 2021; Giles et al., 2017; Kadir et al., 2017).

In this sense, and taking the Job Demands Resources model (JD-R model) (Bakker & Demerouti, 2017) as a reference, we propose that social support reduces the levels of uncertainty and, as a result, improves the levels of job satisfaction in nursing staff. Consequently, this study aimed to verify the mediating effect of role ambiguity between social support (supervisor and colleagues) and job satisfaction in a sample of Portuguese nursing staff.

1.1 | Social support and job satisfaction in nursing staff

The concept and definition of social support are complex, resulting in numerous proposed definitions of this construct. Social support can be defined as the assistance and protection given by others (Velando-Soriano et al., 2020). This support can come from both informal sources (e.g. family and friends) and formal sources (e.g. supervisors). According to Shirey (2004), four characteristics or types of support can be identified: (a) instrumental support associated with the provision of goods, resources or services; (b) emotional support related to the provision of affect, empathy, trust or care; (c) informational support related to information provided both to solve a problem and to mitigate stress; and (d) appraisal support associated with self-evaluation and affirmational support made by another.

Within the work context, Karasek and Theorell's proposal is one of the most widely accepted. These authors define social support as helpful social interaction resulting from interpersonal relationships with colleagues and with the supervisor in the workplace (Luchman & González-Morales, 2013). Karasek and Theorell (1990) establish two types of support at work: socio-emotional and instrumental. Socio-emotional support refers to the degree of social and emotional integration of the nursing staff with their group, that is, with their colleagues and supervisor. Empathy, trust and encouragement would be examples of socio-emotional support. Instrumental support refers to collaborative relationships and assists in job tasks with colleagues and supervisors. Practical advice, guidance and feedback would be examples of instrumental support. Both colleagues and supervisors can be considered to be support sources beneficial to the conduct of work and personal functioning of nursing staff (Luchman & González-Morales, 2013).

Numerous studies have observed a positive relationship between the social support perceived by nursing staff and the quality of services and care in health organizations, intention to stay in the organization, organizational commitment and job satisfaction (Bagheri Hossein Abadi et al., 2021; Ghanayem et al., 2020; Modaresnezhad et al., 2021; Pérez-Fuentes et al., 2020). Regarding job satisfaction, high levels of social support foster (1) the exchange of advice, feedback and guidance to perform clinical tasks and (2) the development of a strong affective climate of empathy, trust and mutual reinforcement. As a consequence of this helpful social interaction, nursing

professionals show improved job performance which is reflected in a positive job evaluation, manifested in the form of high job satisfaction (Bagheri Hossein Abadi et al., 2021; Ghanayem et al., 2020; Modaresnezhad et al., 2021; Pérez-Fuentes et al., 2020). In this sense, the following hypotheses are proposed:

H1a. Higher levels of supervisor social support are related to higher levels of job satisfaction.

H1b. Higher levels of colleagues' social support are related to higher levels of job satisfaction.

1.2 | Role ambiguity and job satisfaction in nursing staff

Current health care challenges have changed the way nursing roles are performed, making them more complex and dynamic in some cases (e.g. COVID). These changes have resulted in nursing professionals finding themselves in situations of uncertainty or lack of knowledge of tasks and functions arising more frequently (e.g. COVID treatment guidelines), as well as conflicts and overlaps of responsibilities between different roles (e.g. responsibilities and tasks in multidisciplinary in-hospital teams) (Lankshear et al., 2016; Manzano García & Ayala Calvo, 2021; Martin & Weeres, 2016). As a consequence, nursing staff has become more vulnerable to psychological risk situations at work, especially to role stressors (Blanco-Donoso et al., 2019; Frögéli et al., 2019; Manzano García & Ayala Calvo, 2021; Wells, 2021). Within role stressors, role ambiguity should be highlighted for its negative consequences on the well-being, health and performance of nursing staff (Blanco-Donoso et al., 2019; Cenzig et al., 2021; Schmidt et al., 2014).

Role ambiguity or uncertainty refers to the lack of information and/or confusion about the functions, tasks and responsibilities associated with a position (Cenzig et al., 2021; Schmidt et al., 2014). The lack of clarity may be due to several reasons (Cenzig et al., 2021): (a) an inaccurate job description, (b) an absence of clear information about functions and tasks and (c) inadequate communication of the functions and responsibilities to be performed. Cenzig et al. (2021) and Schmidt et al. (2014) declare that unclear requests and expectations by supervisors and co-workers are also considered sources of uncertainty at work.

Various studies have observed a negative link between role ambiguity and work attitudes such as job satisfaction, organizational commitment or intention to stay (Cenzig et al., 2021; Déry et al., 2018; Kadir et al., 2017; Schmidt et al., 2014; Sureda et al., 2018). With regard to job satisfaction, high role ambiguity, reflected by the absence of information and/or instructions about the job (e.g. what, how, when and with whom to work), makes it difficult to perform clinical tasks, negatively affecting performance and generating perceptions of incompetence and frustrations (Cenzig et al., 2021; Giles et al., 2017; Kadir et al., 2017). These perceptions, in turn, lead to negative emotions and feelings which manifest themselves in the

workplace in the form of low levels of job satisfaction. Bearing the above in mind, the following hypothesis is proposed:

H2. Higher levels of role ambiguity are related to lower levels of job satisfaction.

1.3 | The mediating effect of role ambiguity between social support and job satisfaction

Numerous studies have shown that higher levels of social support, both from supervisor and colleagues, are related to higher perceptions of job satisfaction in the nursing context (Bagheri Hossein Abadi et al., 2021; Ghanayem et al., 2020; Modaresnezhad et al., 2021; Pérez-Fuentes et al., 2020). However, studies on the mechanism through which social support has a positive effect on job satisfaction are still lacking. Taking as a reference the JD-R model (Bakker & Demerouti, 2017), we propose that social support reduces the perception of uncertainty and, as a result, it rises the job satisfaction perceptions in nursing staff.

The J-DR model assumes the existence of job demands and resources in any position (Bakker & Demerouti, 2017). On the one hand, job demands are aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs. In this sense, role ambiguity can be considered a job demand. Lack of information about the functions of the professional role causes physical fatigue and psychological discomfort, which prevents the successful completion of clinical tasks (Blanco-Donoso et al., 2019; Cenzig et al., 2021). A high number of job demands is associated with high levels of dissatisfaction, stress, and burnout (Bakker & Demerouti, 2017).

On the other hand, job resources are those elements of the job which allow the nursing staff to carry out their tasks effectively and facilitate their personal and professional development. Social support can be considered a job resource since the support of the supervisor and colleagues (e.g. useful advice, trust, and empathy) makes it easier for nursing professionals to carry out their tasks successfully (Bagheri Hossein Abadi et al., 2021; Blanco-Donoso et al., 2019; Ghanayem et al., 2020). The presence of high job resources is related to psychological well-being and job satisfaction (Bakker & Demerouti, 2017).

The JD-R model shows the existence of relationships between job resources and demands, but it does not specify the sign of the relationships. Bakker and Demerouti (2017) indicate the importance of analysing the relationships between job resources and demands in different occupational sectors (e.g. the nursing context). In this sense, we propose that social support (job resource) reduces the negative effect of role ambiguity (job demand) on job satisfaction. The instrumental and socio-emotional support given by colleagues and supervisors helps to clarify the work role (e.g. tasks and responsibilities), reducing uncertainty at work and increasing work motivation (Blanco-Donoso et al., 2019; Frögéli et al., 2019). Therefore, nursing staff feels more positive emotions and feelings in their positions associated with better job performance, experiencing higher levels of job satisfaction

(Bagheri Hossein Abadi et al., 2021; Ghanayem et al., 2020; Modaresnezhad et al., 2021; Pérez-Fuentes et al., 2020). Considering the above, we propose the following hypotheses (Figure 1):

H3a. Role ambiguity fully mediates the relationship between supervisor social support and job satisfaction.

H3b. Role ambiguity fully mediates the relationship between colleagues' social support and job satisfaction.

2 | METHODS

2.1 | Design and sampling

A cross-sectional study was carried out with a convenience sample of registered nurses (RNs) and certified nursing assistants (CNAs) from a private hospital in Portugal. RNs have a 4-year university education with different subsequent specializations, while CNAs have a 3-year nonuniversity education. Both are considered nursing professionals by the Portuguese national health system. The criteria for selecting the participants were the following: (a) working as a RN or a CNA and (b) have been working in the same unit/section (wards and outpatient units) of the hospital for more than 12 months. Those professionals who were occupying a supervisory and/or management position at the time of the study were excluded.

A power analysis was performed to determine the minimum sample size for testing the study hypotheses, using the programme mc_power_med (Schoemann et al., 2017). For the calculation, the following parameters were established: power level of .80, 2000 Montecarlo draws per replication and 5000 replications. The simulations showed that 108 participants are necessary to obtain a standard power level (.80) to detect the direct and indirect effects raised in the study hypotheses.

2.2 | Instruments

To measure social support, the scale of social support of the supervisor (four items, e.g., 'My supervisor supports my job') and of the colleagues (four items, e.g., 'My colleagues treat me with respect') of the
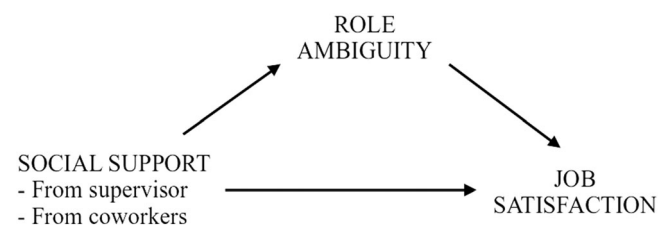

FIGURE 1 Relationships between social support, role ambiguity and job satisfaction

Portuguese version of the Job Content Questionnaire (Karasek & Theorell, 1990) was used. Participants responded to each item using a four-point scale, from 1 (totally disagree) to 4 (totally agree). Omega reliability coefficients (Dunn et al., 2014) were .93 (*boot se* = .008) for supervisor and .87 (*boot se* = .014) for colleagues' support.

To measure role ambiguity, the four items (e.g. 'I know exactly what is expected of me' [inverted]') of the Portuguese version of the role stress scale of Rizzo et al. (1970) were used. The participants expressed their degree of agreement with each item through a seven-point response scale from 1 (strongly agree) to 7 (strongly agree). The omega reliability coefficient obtained in this study was .91 (*boot se* = .012).

The job satisfaction scale of Lima et al. (1994) was used to measure job satisfaction. This scale is composed of three items (e.g. 'Regarding the work you do in your unit, you feel…'). Participants expressed their satisfaction with each statement using a seven-point scale response, from 1 (totally unsatisfied) to 7 (totally satisfied). The omega reliability coefficient was .89 (*boot se* = .011). Finally, the questionnaire included questions about the following socio-demographic and labour variables: age, gender, professional category, ward or outpatient unit, years working in the ward/unit and working shifts.

To determine the validity of the scales, two measurement models were compared concerning the construct validity of the scales: M1 and M2. The M1 model proposes the existence of a single factor in which all the items of the scales used in the study saturate. The M2 model assumes the existence of four factors (supervisor social support, colleagues' social support, role ambiguity and job satisfaction) in which their respective items saturate. The four-factor model (M2) showed a better fit to the data: $X^2(98) = 281.122$, $p < .01$, Comparative Fit Index (CFI) = .94, TuckerLewis Index (TLI) = .93, Standardized Root Mean Square Residual (SRMR) = .05 and Akaike Information Criterion (AIC) = 7770.99 than the one-factor model (M1): $X^2(104) = 1285.46$, $p < .01$, CFI = .61, TLI = .54, SRMR = .14 and AIC = 8763.20, considering the criteria established by Kline (2016): CFI and TLI above .90, SRMR below .08 and the lowest value in AIC. Consequently, the validity of the scales is appropriate and the variables measured in this study can be considered independent psychological constructs.

2.3 | Procedure

To carry out the study, the researchers had a first meeting with the board of the hospital, in which the objectives and the research questionnaire were presented, and participation in it was requested. After receiving the approval of the ethics committee and subsequent authorization from the managers of the institution, the researchers attended the daily clinical meetings of the different units of the hospital (wards/outpatient units), to present the study and request the collaboration of those professionals who complied with the selection criteria requirements. Each participant was given an envelope without identification and an anonymous questionnaire with instructions for its completion. The questionnaires were placed in the envelopes and

returned to the researchers. Data collection took place between February and April 2018. Of the potential 415 participants, a final sample of 254 professionals, 124 RNs and 130 CNAs was obtained (61.20%).

2.4 | Data analysis

Data analysis was performed using the R statistical programme (R Core Team, 2021) and the lavaan and MBESS packages. The following descriptive statistics were calculated as follows: mean, standard deviation, skewness and kurtosis and the correlations between the variables using Pearson's correlation coefficient (*r*). The omega coefficient (Dunn et al., 2014) was used to verify the reliability of the scales.

Following the recommendations of Hayes (2013), the analysis of the direct and indirect effects was carried out by estimating percentile confidence intervals (95% PC-CI), based on 10,000 resamples. If the confidence interval does not include zero (0), the effect can be considered as significant (*p* < .05).

2.5 | Ethical considerations

The ethics committee of the hospital approved this study (ref: HPA-FR-2018-103). Anonymity and the use of all data for exclusively scientific purposes were guaranteed. All participants were informed of the objective of the research and gave their written consent to participate.

3 | RESULTS

3.1 | Sample characteristics

The sample consisted of 254 professionals from a private hospital complex, 124 RNs (48.81%) and 130 CNAs (51.19%). The mean age of the sample was 32.51 years (*SD* = 8.46) with an age range between

TABLE 1 Descriptive statistics and correlations of the study variables (*N* = 254)

	1	2	3	4
1. Supervisor social support	1.00			
2. Colleagues' social support	.35	1.00		
3. Role ambiguity	−.47	−.41	1.00	
4. Job satisfaction	.66	.45	−.66	1.00
Mean	3.33	3.42	3.16	4.48
Standard deviation	0.68	0.53	1.12	1.05
Skewness	−0.83	−0.50	0.59	−0.22
Kurtosis	0.10	−0.75	0.36	−0.41

Note: All coefficients are significant (*p* < .01).

FIGURE 2 Mediation analysis (N = 254). *Note*: Standardized coefficients. All coefficients are significant (*p* < .01). Social support from supervisor: coefficients on the top. Social support from co-workers: coefficients on the bottom. Professional category was covaried but not presented in the final model for simplicity
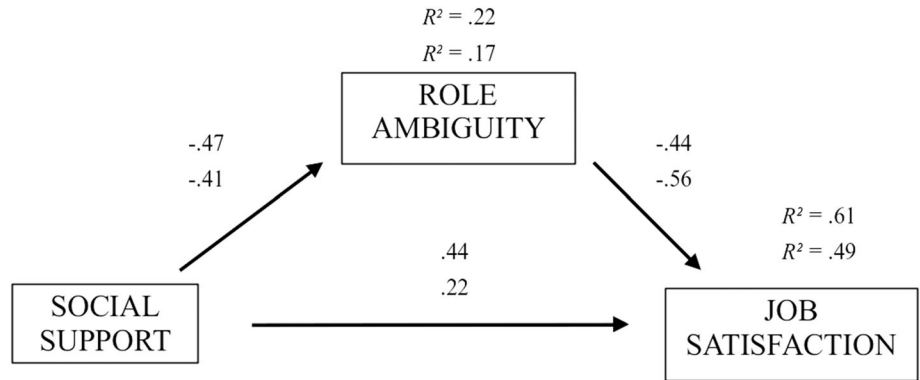

TABLE 2 Direct and indirect effects of social support on job satisfaction (N = 254)

Predictor (X)	Mediator (M)	Outcome (Y)	X → M	M/covariate → Y	Direct effect	Indirect effect	95% PC-CI	Total effect
Supervisor social support	Role ambiguity	Job satisfaction	−0.77	−0.41	0.68	0.32	0.22, 0.42	1.00
Covariate	Prof. category			−0.30				
Colleagues' social support	Role ambiguity	Job satisfaction	−0.88	−0.52	0.43	0.45	0.30, 0.62	0.89
Covariate	Prof. category			−0.36				

Note: Nonstandardized coefficients. All coefficients are significant (*p* < .01). 95% PC-CI: percentile confidence intervals (95%) based on 10,000 samples.
Abbreviation: PC-CI, percentile confidence intervals.

21 and 58 years. The sample was composed mainly of women ($n = 174$). No statistically significant differences were observed between men and women depending on the professional category (RNs versus CNAs): $X^2(1) = 0.63$, $p = .43$. The mean years of professional experience was 7.63 years ($SD = 4.31$), and most of the participants (87.3%) reported working 12-h shifts.

3.2 | Descriptive statistics and correlations

The results, as seen in Table 1, indicate that the study participants showed high levels of social support ($M = 3.33$ and $M = 3.42$ for supervisor and colleagues' social support, respectively), a low level of role ambiguity ($M = 3.16$) and a medium level of job satisfaction ($M = 4.48$). No statistically significant differences were observed in supervisor social support, colleagues' social support and role ambiguity depending on the professional category, but there were differences in job satisfaction: $M_{rn} = 4.72$ and $M_{cna} = 4.24$, $t(243.28) = 3.78$, $p < .01$. As expected, social support from supervisor and colleagues was positively and significantly ($p < .01$) related to job satisfaction ($r = .66$ and $r = .45$, respectively). A negative correlation was found between role ambiguity and job satisfaction ($r = -.60$, $p < .01$).

3.3 | Mediation analysis

Figure 2 shows the mediation models for social support from supervisor and colleagues. The direct, indirect and total effects of both models can be consulted in Table 2.

It is apparent from Table 2 that supervisor support was shown to be a significant predictor ($B = 0.68$, 95% PC-CI: 0.54, 0.83) of the job satisfaction variable, confirming hypothesis H1a. Role ambiguity also had a direct effect ($B = -0.41$, 95% PC-CI: −0.49, −0.32) on job satisfaction, confirming Hypothesis H2. Social support from supervisor and role ambiguity explained 61% of the variance of the result variable, together with the covariate ($B = -0.30$, 95% PC-CI: −0.48, −0.14). Regarding the mediating effect of role ambiguity, this variable partially mediated the relationship between supervisor social support and job satisfaction, showing an indirect effect of $B = 0.31$ (95% PC-CI: 0.22, 0.42). Social support from supervisor had an indirect effect, reducing the levels of uncertainty at work, and also a direct effect on job satisfaction. Of the total effect (100%), 68% (0.68/1.00) was direct and 32% (0.32/1.00) was indirect. Consequently, Hypothesis H3a could only be partially confirmed.

As shown in Table 2, colleagues' social support was a significant predictor ($B = 0.43$, 95% PC-CI: 0.21, 0.66) of job satisfaction, as was

role ambiguity ($B = -0.52$, 95% PC-CI: -0.61, -0.42), supporting Hypotheses H1b and H2. These two variables explained 49.3% of the variance of job satisfaction, together with the covariate ($B = -0.36$, 95% PC-CI: -0.57, -0.16). Role ambiguity partially mediated the relationship between colleagues' social support and job satisfaction, showing an indirect effect of $B = 0.45$ (95% PC-CI: 0.30, 0.62). Colleagues' social support showed an indirect effect, reducing the perception of role ambiguity, and a direct effect on job satisfaction. On the total effect (100%), the direct effect was 48.86% (0.43/0.89) and the indirect effect was 51.14% (0.45/0.89). Therefore, Hypothesis H3b could only be partially confirmed.

4 | DISCUSSION

Despite the large number of studies on social support and job satisfaction in the nursing context (Bagheri Hossein Abadi et al., 2021; Ghanayem et al., 2020; Modaresnezhad et al., 2021; Pérez-Fuentes et al., 2020), the mechanisms through which supervisors and colleagues' support increases job satisfaction levels have not yet fully explored. Accordingly, this study aimed to analyse the effect of role ambiguity as a mediating variable: Social support reduces the levels of uncertainty at work and, as a result, increases the levels of job satisfaction. It has been found that supervisor and colleagues' social support had both direct and indirect effects, through role ambiguity, on participants' job satisfaction. However, in the case of supervisor support, the main effect was direct, while in the case of colleagues support, the direct and indirect effects were more balanced.

Regarding the relationship between social support and job satisfaction, it has been observed that high levels of support from supervisor and colleagues were associated with higher levels of job satisfaction, confirming Hypotheses H1a and H1b. Through helpful social interactions, the exchange of information and advice about the role (e.g. functions and responsibilities), together with a climate characterized by good interpersonal relationships (e.g. trust and empathy) improves the nursing staff's performance, which translates into positive emotions and evaluations of the job. As a consequence, nursing staff experience high perceptions of job satisfaction (Bagheri Hossein Abadi et al., 2021; Ghanayem et al., 2020; Modaresnezhad et al., 2021; Pérez-Fuentes et al., 2020).

Concerning Hypothesis H2, the results corroborated the negative relationship between role ambiguity and job satisfaction: Higher scores in job uncertainty were associated with lower scores in satisfaction in the workplace. The findings in the present study are consistent with the results of Cenzig et al. (2021), Giles et al. (2017), Déry et al. (2018) and Kadir et al. (2017). Role ambiguity is a significant stressor with negative effects on job satisfaction. A lack of information, together with unclear instructions and protocols, makes it difficult to correctly perform clinical tasks, generating situations of stress and frustration. These experiences lead, in turn, to negative job evaluations, increasing the levels of job dissatisfaction in the nursing staff (Cenzig et al., 2021; Déry et al., 2018; Giles et al., 2017; Kadir et al., 2017).

Regarding the mediation models, the results partially confirmed Hypotheses H3a and H3b. Both supervisor and colleagues' social support had a direct effect and an indirect effect, reducing role ambiguity, on job satisfaction. These effects can be discussed according to the JD-R model (Bakker & Demerouti, 2017). Concerning the direct effect, social support is a job resource that allows the achievement of tasks and goals at work. Receiving support, both instrumental and socioemotional, generates perceptions of control over tasks and effectiveness at work, strongly related to high levels of job satisfaction (Bagheri Hossein Abadi et al., 2021; Blanco-Donoso et al., 2019; Ghanayem et al., 2020; Modaresnezhad et al., 2021; Pérez-Fuentes et al., 2020).

The indirect effect of social support on job satisfaction would occur through role ambiguity, according to the relationships between job resources and demands addressed in the J-DR model (Bakker & Demerouti, 2017). The perception of instrumental and socioemotional support given by supervisors and colleagues (e.g. feedback and encouragement) increases role clarity at work. Thus, nursing personnel with low role ambiguity know the what, how, when, where and with whom of the tasks, functions and responsibilities of their positions, allowing them to face job demands with greater confidence. As a consequence, professionals feel more motivated, are more likely to offer a better quality of care and services and experience greater job satisfaction (Cenzig et al., 2021; Déry et al., 2018; Giles et al., 2017; Kadir et al., 2017).

Differences were observed in the direct and indirect effects of supervisor and colleagues' social support. The direct effect was greater than the indirect effect in the case of supervisor support, while the direct and indirect effects were similar in the case of colleagues' support. This difference may be due to the availability of supervisor and colleagues to be consulted and asked about daily aspects of the work. Coworkers can be perceived as more accessible and closer when it comes to resolving any query or work-related issue, thus reducing uncertainty about responsibilities and tasks more inmediately and constinously. On the contrary, supervisors would be seen as less accessible and their support would be given at more specific moments compared with colleagues' support (Kim et al., 2017; Luchman & González-Morales, 2013). Thus, the indirect effect, through the reduction of ambiguity, would be greater in the social support from colleagues.

4.1 | Limitations and future research

These findings must be interpreted with caution considering the following. First, the cross-sectional design makes it impossible to determine causeeffect relationships between variables. Second, the study sample does not allow the results to be generalized to the population which is being studied. Third, the use of self-measures leads to the possible existence of biases in the participants' responses, such as social desirability bias. Finally, third variables (e.g. resilience and job performance) not measured in the research could mediate the relationship between social support, role ambiguity and job satisfaction.

In this sense, another element not considered is the possible interaction between NRs and CNAs. There could be instrumental social support from the NRs to the CNAs, with the NRs being responsible for supervising the work of the CNAs.

Some of the limitations can be remedied in future research. The findings of this study can be replicated with representative samples of different nursing professionals and by comparing public and private health care organizations. Diary studies would help to understand the dynamics of the relationships between social support, role ambiguity and job satisfaction, allowing the identification of support patterns and profiles over time. Finally, new studies and research should include specific measures of the type of social support (e.g. instrumental and socio-emotional) and consider the role of individual, group and organizational variables in the provision of support at work. Likewise, it would be necessary to explore the support relationships between different professionals. In this regard, less qualified staff (e.g. CNAs) could benefit from more instrumental support due to the guidance provided by other nursing professionals (e.g. RNs).

5 | CONCLUSIONS

This study provides empirical evidence on the processes involved (e.g. reduction of uncertainty) between social support and job satisfaction in nursing staff: a direct effect through helpful social interactions (instrumental and socio-emotional support) and an indirect effect reducing the perception of uncertainty at work. These processes are present in both supervisor and colleagues' social support. Regarding theoretical implications, we have provided further evidence about the direct links between job demands and resources in the JD-R model (Bakker & Demerouti, 2017). Our findings have highlighted the negative relationship between job resources (e.g. social support) and demands (e.g. role ambiguity) in the nursing context. Certain resources (e.g. social support) have the capacity to reduce the negative effects of job demands on important attitudes such as job satisfaction. To sum up, social support is a crucial resource in the nursing work context with beneficial effects on well-being (e.g. reducing role stress) and job satisfaction.

6 | IMPLICATIONS FOR NURSING MANAGEMENT

Given that social support has beneficial consequences for individuals and organizations, interventions directed at three levels can be carried out (EU-OSHA., 2014): (a) workers, (b) supervisors and (c) organizations. On an individual level, a key element would be the development of strong interpersonal relationships between colleagues, either strengthening existing ones (e.g. gratitude for the help and reciprocity) or establishing new ones (e.g. mutual appreciation and absence of animosity). Supervisors play a central role in support processes in the workplace, so their training is essential in this regard, for example, distinguishing when it is necessary to offer instrumental

or socio-emotional support. Finally, on an organizational level, social support can be fostered through the development of cultures and work environments where cooperation between groups, units and departments is enhanced and rewarded (e.g. culture of mutual appreciation). To sum up, managers of hospitals and health units can establish the organizational bases to facilitate this process, considering the importance of the role of the supervisors and colleagues in the provision of high levels of instrumental and socio-emotional support.

CONFLICT OF INTEREST
The authors declare no conflicts of interest.

AUTHOR CONTRIBUTIONS
Conceptualization, A.O. and Y.B; methodology and data analysis, A.O. and H.A.; data analysis replication, Y.B.; writing-original draft preparation, A.O. and Y.B.; writing-review and editing, A.O. and H.A. All authors have read and agreed to the present version of the manuscript.

DATA AVAILABILITY STATEMENT
The authors do not wish to share the data.

ETHICS STATEMENT
Ethical approval for this study was obtained from the Hospital Ethics Committee of the HPA Hospital Particular do Algarve (approval number: 2017/2882).

ORCID
Alejandro Orgambídez https://orcid.org/0000-0003-3785-4336
Helena Almeida https://orcid.org/0000-0002-8186-3507

REFERENCES

Bagheri Hossein Abadi, M., Taban, E., Khanjani, N., Naghavi Konjin, Z., Khajehnasiri, F., & Samaei, S. E. (2021). Relationships between job satisfaction and job demand, job control, social support, and depression in Iranian nurses. *Journal of Nursing Research*, 29(2), e143. https://doi.org/10.1097/jnr.0000000000000410

Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285. https://doi.org/10.1037/ocp0000056

Blanco-Donoso, L. M., Moreno-Jiménez, B., Pereira, G., & Garrosa, E. (2019). Effects of co-worker and supervisor support on nurses' energy and motivation through role ambiguity and psychological flexibility. *The Spanish Journal of Psychology*, 22, E25. https://doi.org/10.1017/sjp.2019.10

Cenzig, A., Yoder, L. H., & Danesh, V. (2021). A concept analysis of role ambiguity experienced by hospital nurses providing bedside nursing care. *Nursing & Health Sciences*, 23(4), 807–817. https://doi.org/10.1111/nhs.12888

Déry, J., Clarke, S. P., D'Amour, D., & Blais, R. (2018). Scope of nursing practice in a tertiary pediatric setting: Associations with nurse and job characteristics and job satisfaction: Scope of nursing practice. *Journal of Nursing Scholarship*, 50(1), 56–64. https://doi.org/10.1111/jnu.12352

Dunn, T. J., Baguley, T., & Brunsden, V. (2014). From alpha to omega: A practical solution to the pervasive problem of internal consistency

estimation. *British Journal of Psychology*, *105*(3), 399–412. https://doi.org/10.1111/bjop.12046

EU-OSHA. (2014). *Healthy Workers: Manage Stress*. European Agency of Safety and Health for Work.

Frögéli, E., Rudman, A., & Gustavsson, P. (2019). The relationship between task mastery, role clarity, social acceptance, and stress: An intensive longitudinal study with a sample of newly registered nurses. *International Journal of Nursing Studies*, *91*, 60–69. https://doi.org/10.1016/j.ijnurstu.2018.10.007

Ghanayem, M., Srulovici, E., & Zlotnick, C. (2020). Occupational strain and job satisfaction: The job demand-resource moderation-mediation model in haemodialysis units. *Journal of Nursing Management*, *28*(3), 664–672. https://doi.org/10.1111/jonm.12973

Giles, M., Parker, V., Mitchell, R., & Conway, J. (2017). How do nurse consultant job characteristics impact on job satisfaction? An Australian quantitative study. *BMC Nursing*, *16*(1), 51. https://doi.org/10.1186/s12912-017-0246-y

Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis. A Regression-Based Approach*. The Guilford Press.

Kadir, A. R., Kamariah, N., Saleh, A., & Ratnawati, R. (2017). The effect of role stress, job satisfaction, self-efficacy and nurses' adaptability on service quality in public hospitals of Wajo. *International Journal of Quality and Service Sciences*, *9*(2), 184–202. https://doi.org/10.1108/IJQSS-10-2016-0074

Karasek, R., & Theorell, T. (1990). *Healthy Work: Stress, Productivity and the Reconstruction of Working Life*. Basic Book.

Kim, H. J., Hur, W.-M., Moon, T.-W., & Jun, J.-K. (2017). Is all support equal? The moderating effects of supervisor, coworker, and organizational support on the link between emotional labor and job performance. *BRQ Business Research Quarterly*, *20*(2), 124–136. https://doi.org/10.1016/j.brq.2016.11.002

Kline, R. R. (2016). *Principles and practice of structural equation modeling*. The Guilford Press.

Lankshear, S., Rush, J., Weeres, A., & Martin, D. (2016). Enhancing role clarity for the practical nurse: A leadership imperative. *Journal of Nursing Administration*, *46*(6), 300–307. https://doi.org/10.1097/NNA.0000000000000349

Lima, M., Vala, J., & Monteiro, M. B. (1994). Culturas organizacionais. In M. B. Vala, M. B. Monteiro, & A. Caetano (Eds.), *Psicologia Socia e das Organizações—Estudios em Empresas Portuguesas* (pp. 23–45). Celta Editora.

Lu, H., Zhao, Y., & While, A. (2019). Job satisfaction among hospital nurses: A literature review. *International Journal of Nursing Studies*, *94*, 21–31. https://doi.org/10.1016/j.ijnurstu.2019.01.011

Luchman, J. N., & González-Morales, M. G. (2013). Demands, control, and support: A meta-analytic review of work characteristics interrelationships. *Journal of Occupational Health Psychology*, *18*(1), 37–52. https://doi.org/10.1037/a0030541

Manzano García, G., & Ayala Calvo, J. C. (2021). The threat of COVID-19 and its influence on nursing staff burnout. *Journal of Advanced Nursing*, *77*(2), 832–844. https://doi.org/10.1111/jan.14642

Martin, D., & Weeres, A. (2016). Building nursing role clarity on a foundation of knowledge and knowledge application. *Healthcare Management Forum*, *29*(3), 107–110. https://doi.org/10.1177/0840470416633237

Modaresnezhad, M., Andrews, M., Mesmer-Magnus, J., Viswesvaran, C., & Deshpande, S. (2021). Anxiety, job satisfaction, supervisor support, and turnover intention of mid-career nurses: A structural equation model analysis. *Journal of Nursing Management*, Online. https://doi.org/10.1111/jonm.13229

Pérez-Fuentes, M. d. C., Gázquez, J. J., Molero, M. d. M., Oropesa, N. F., & Martos, Á. (2020). Violence and job satisfaction of nurses: Importance of a support network in healthcare. *The European Journal of Psychology Applied to Legal Context*, *13*(1), 21–28. https://doi.org/10.5093/ejpalc2021a3

R Core Team. (2021). *R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing*. https://www.R-project.org/

Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quaterly*, *15*(2), 150–163. https://doi.org/10.2307/2391486

Schmidt, S., Roesler, U., Kusserow, T., & Rau, R. (2014). Uncertainty in the workplace: Examining role ambiguity and role conflict, and their link to depression—A meta-analysis. *European Journal of Work and Organizational Psychology*, *23*(1), 91–106. https://doi.org/10.1080/1359432X.2012.711523

Schoemann, A. M., Boulton, A. J., & Short, S. D. (2017). Determining power and sample size for simple and complex mediation models. *Social Psychological and Personality Science*, *8*(4), 379–386. https://doi.org/10.1177/1948550617715068

Shirey, M. R. (2004). Social support in the workplace: Nurse leader implications. *Nursing Economics*, *22*(6), 291–313.

Sureda, E., Mancho, J., & Sesé, A. (2018). Psychosocial risk factors, organizational conflict and job satisfaction in health professionals: A SEM model. *Anales de Psicología*, *35*(1), 106–115. https://doi.org/10.6018/analesps.35.1.297711

Velando-Soriano, A., Ortega-Campos, E., Gómez-Urquiza, J. L., Ramírez-Baena, L., De La Fuente, E. I., & Cañadas-De La Fuente, G. A. (2020). Impact of social support in preventing burnout syndrome in nurses: A systematic review. *Japan Journal of Nursing Science*, *17*(1). https://doi.org/10.1111/jjns.12269

Wells, C. M. (2021). Factors influencing role ambiguity and role conflict among intensive care unit nurses providing end of life care. *The Journal of Nursing Administration*, *51*(12), 620–625. https://doi.org/10.1097/NNA.0000000000001084