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Exploring Technostress in Video Medical Consultation: A Study of Private Doctors in South European Countries

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Abstract

This study investigates the factors contributing to technostress in the context of video medical consultations among private doctors offering this service in south European countries. The study focuses on technical support, information availability, social support, social presence, work overload, and role ambiguity in video consultations. The conceptual framework is based on the person-environmental fit theory and theory of planned behavior. Using structural equation modeling (SEM), data from a cross-sectional field survey of 330 private doctors in southern Europe were analyzed. The results indicate that technical support has a positive impact on reducing workload and role ambiguity in video consultations. This study adds to the existing literature on technostress among private doctors in South Europe and contributes unique insights by integrating two prominent theories. The findings have important implications for administration, practitioners, and policymakers in terms of policy development and implementation. Future research should aim to include a diverse sample of doctors to enhance participation and explore the influence of various factors such as backgrounds, fellowship areas, genders, beliefs, and experience levels. The study concludes with policy recommendations, suggestions for further research, and implications for theory and practice.

Keywords

Technostress, Video Medical Consultation, Private Doctors, South European Countries

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1. Introduction

The adoption of new techniques in the medical industry has led to the development of several innovative therapeutic practices (Zhao et al., 2021). While medical consultation has improved diagnosis and treatment and provided monetary and managerial advantages, adoption problems and resistance behaviors also occur (Yuan et al., 2020). Hospitals and doctors are faced with a conundrum between the inescapable trend of ongoing system renewal in healthcare and the growing number of doctor concerns about unfavorable reactions to these newer technologies, such as stress, worry, or tiredness (Marais et al., 2020). Consequently, we want to provide a thorough perspective on the adoption of the relationship between computer-based technologies and technostress levels (Xiao et al., 2020; Zhao et al., 2021). Technostress, defined as "induced by an incapacity to cope with new computer technology in a healthy manner" (Salo et al., 2022), is a developing form of stress that has received emphasis from both the media and academic research. Despite this, there are not many studies on the connection between technological traits and technostress.

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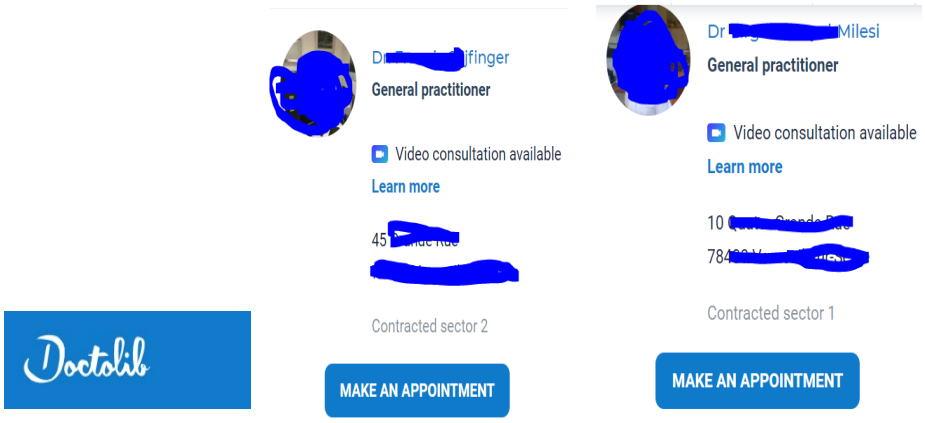

Figure 1 : Doctolib consultation sample. Source: https://www.doctolib.fr/

In addition to the information availability in the community's request that scholars study the unintended effects of the technological item, we present a special structural framework on technostress (Wu et al., 2022; Zheng et al., 2018). Our focus is on technologies rather than information and technical support as a broad notion because they connect virtually separated individuals so they can collaborate (Borle et al., 2021; Salo et al., 2022). This research also considers work overload and role ambiguity in video consultation and systems for exchanging medical files back and forth. Technical support refers to "the degree to which an individual perceives transmission velocity" (Bart-Plange et al., 2022). The usage of technology by individuals can be improved with technical support, such as help from professionals. "Support/resistance" is one aspect that affects how computers are used (Thannhauser et al., 2021; Xiao et al., 2020). Additionally, there is a lack of user and technical support (Bart-Plange et al., 2022).

Information availability is defined as "an individual's perception of support for the process of encoding and decoding information" (Ayala Aguirre et al., 2022). The retail technique is necessary for adaptive medical consultation services to send medical records (HajiAhmadi et al., 2021). Professionals in radiography, forensics, or cardiology can offer medical consultation depending on high-definition medical photos and enough time (Borle et al., 2021). Social support describes "an individual's perception of support from his/her co-workers" (Bécares & Kneale, 2022). It can come from a variety of sources, including community, relatives, colleagues, and co-workers. Professionals using medical services are more likely to complete their duties and have a better experience using the technology if they receive enough support from their peers (Cerami et al., 2021). "Social presence" is referred to as the feeling of being psychologically near or present, and it is an important aspect of medical consultation systems (Soko et al., 2021). The success of beneficial impacts is limited if one considers that video conferencing technology is impersonal and unsocial (Thannhauser et al., 2021).

The current study aims to examine the factors contributing to technostress in the context of video medical consultations in South European countries. The study focuses on private doctors who provide the option of video medical consultation. Specifically, the study investigates the impact of technical support, information availability, social support, and social presence on perceived work overload and perceived role ambiguity in video consultations. The present study is grounded in the person-environmental fit theory, which refers to the degree to which individual and environmental characteristics match (Yan et al., 2013). Additionally, the theory of planned behavior is incorporated, which links beliefs to behavior and suggests that attitude, subjective norms, and perceived behavioral control shape an individual's behavioral intentions (Bosnjak et al., 2020; Conner, 2020). These theories form the basis of the suggested conceptual framework that will be empirically tested in this study.

2. Literature Review

The present study focuses on determining the factors contributing to technostress in the context of video medical consultations among private doctors who offer the option of video medical consultation in South European countries. Specifically, the study investigates the impact of technical support, information availability, social support, and social presence on perceived work overload and perceived role ambiguity in video consultations. To establish a theoretical foundation for this study, the present research incorporates the person-environmental fit theory and the theory of planned behavior. The person-environmental fit theory refers to the degree to which individual and environmental characteristics align (Yan et al., 2013). On the other hand, the theory of planned behavior is a psychological theory that links beliefs to behavior, positing that attitude, subjective norms, and perceived behavioral control collectively shape an individual's behavioral intentions (Bosnjak et al., 2020; Conner, 2020).

The person-environmental fit theory recognizes the significance of unique or personal qualities, including desires and capabilities, while also considering the operationalization of environmental parameters that encompass features such as needs and expectations. According to the person-environmental fit theory, favorable outcomes occur when there is a specific match between the appropriate external and contextual characteristics (Marais et al., 2020; Yan et al., 2013). By examining the aforementioned factors and their relationships, this study aims to contribute to the understanding of technostress in the context of video medical consultations, providing valuable insights for healthcare professionals and policymakers in South European countries. The following proposed model is presented in Figure 2 shows the proposed structural relationships and further explained below.

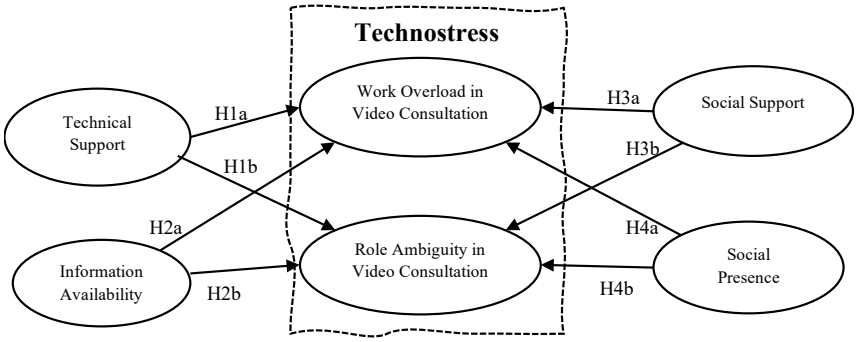

Figure 2: Conceptual Framework

2.1. Technical support with work overload and role ambiguity in video consultation

The use of technology by doctors can be enhanced with technical support, including assistance from specialists (Thannhauser et al., 2021). Previous literature emphasizes the importance of providing support to those in need (Marais et al., 2020; Wu et al., 2022; Bécares & Kneale, 2022). Inadequate technical and user assistance has been identified as a contributing factor to the failure of medical consultations (Xiao et al., 2020). The lack of technical support has also hindered the adoption of technology in healthcare settings (Bécares & Kneale, 2022). Ayala Aguirre et al. (2022) highlight that the acceptance of medical consultation by doctors depends on technological support, which can be provided by special educators, computer professionals, and skilled helpers. The proficiency of doctors in utilizing technology is enhanced through the acquisition of technical skills (Marais et al., 2020). In cases where unusual or complex medical consultation tools are involved, doctors typically expect

technical support from specialists to effectively manage online consultations (Taser et al., 2022).

It is essential to establish guidelines for medical consultation processes that align with the principles of effective healthcare. This includes understanding how medical consultation techniques can influence participant engagement and adherence to current ideas and policies (Dias et al., 2021). The provision of integrated information during medical consultation, based on functional or practical experience, can be challenging to document and record in a transferable format (Marais et al., 2020; Yan et al., 2013). The level of participant involvement and the impact of their opinions on decision-making may vary depending on the consultation style and the availability of technical support (Thannhauser et al., 2021). In certain contexts, such as underdeveloped nations in Southern Europe, healthcare recipients may have limited opportunities to actively participate in discussions. Previous studies have indicated that technical support negatively influences work overload and role ambiguity in video consultation within European countries (Borle et al., 2021; Yan et al., 2013).

Therefore, based on these insights, the proposed hypotheses state that doctors' perception of technical support will have a negative impact on both perceived work overload and perceived role ambiguity in video consultation.

H_1a: Doctors' perception of technical support has negative impact on perceived work overload in video consultation.

H_1b: Doctors' perception of technical support has negative impact on perceived role ambiguity in video consultation.

2.2. Information availability with work overload and role ambiguity in video consultation

Information availability refers to the support perceived by an individual in the process of encoding and decoding information (Ayala Aguirre et al., 2022). During medical consultations, health records are transmitted using store-and-forward technologies. Adequate support in this context involves providing users with sufficient time and details to complete their tasks (Dias et al., 2021). For instance, professionals in radiology, forensics, or cardiology may provide medical consultation based on video medical images and sufficient time. Inadequate assistance in handling information, on the other hand, can make tasks more difficult to complete or create discomfort when using technology (HajiAhmadi et al., 2021). Clients engaging in synchronous services interact in real-time using video conferencing technologies. The person-environmental fit theory suggests that for this communication method to be effective, there needs to be sufficient broadcast frequency, rich sign arrays, and multiple pathways (Loureiro et al., 2022). Conversely, a lack of interaction support can impair performance, leading to increased workload or negative user perceptions. For example, after receiving a patient's ECG using a specific system, an expert may be consulted for guidance (Borle et al., 2021).

In our study, we employ the competition work-related stress framework to focus on the techno stressors associated with medical consultation technology features. This framework helps us select relevant stressors that reflect struggle stress factors and significant detrimental events (Marais et al., 2020). Obligations, workload, and expectations are indicators of the demands that need to be managed. According to the conceptual method concept in psychology, an individual's assessment and response to a need or stressor cannot be completely separated from the reality of that need or stressor (Xiao et al., 2020). We utilize the impression management method to represent the mismatch between clients and technologies based on this assumption. The compatibility fit can be assessed using the availability of information based on the attributes of broadcast capacity and the two primary medium procedures (Bart-Plange et al., 2022).

Reviewing various literature on stress, including psychotherapy, strategic management, and investigations (Bécares & Kneale, 2022; Dias et al., 2021; Soko et al., 2021; Thannhauser et al., 2021; Zheng et al., 2018), as well as publications on workload, role ambiguity, work-life balance, organizational environment, individualism, joblessness, human relationships, and daily difficulties, provides a comprehensive understanding of stress-related factors. The World Health Organization suggests that multiple healthcare professionals, including doctors, prescribers, health workers, and

specialists, are capable of medication management. However, specialists should be involved in acquiring or verifying the hospital's complete and accurate list of medications and comparing it with clinical pharmacists (Salo et al., 2022). Nevertheless, research indicates that pharmacists in several European countries typically have access to medical client care. As a result, each patient utilizes the available information to assess the skills of doctors before making a choice (Xiao et al., 2020). Clients' medical consultation decisions become more complex due to factors such as their medical condition and the interaction dynamics between doctors and patients (Wu et al., 2022).

Based on previous studies, information availability has been found to have a negative influence on both work overload and role ambiguity in video consultation for medicines (Borle et al., 2021; Yan et al., 2013). Therefore, the proposed hypotheses state that doctors' perception of information availability will have a negative impact on both perceived work overload and perceived role ambiguity in video consultation.

H_2a: Doctors' perception of information availability has negative impact on perceived work overload in video consultation.

H_2b: Doctors' perception of information availability has negative impact on perceived role ambiguity in video consultation.

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2.3. Social support with work overload and role ambiguity in video consultation

Social support refers to the perceived support an individual receives from their co-workers (Xiao et al., 2020). It can be derived from various sources such as community, relatives, colleagues, and co-workers. Professionals utilizing medical services are more likely to fulfill their duties and have a positive experience with the technology if they receive sufficient support from their peers (HajiAhmadi et al., 2021; Yan et al., 2013). Communal connections and social support play a vital role in the restoration of psychological health, and they are important aspects of social well-being (Marais et al., 2020). Extensive social support has been shown to be necessary for achieving good health, well-being, and sleep quality in previous studies (Salo et al., 2022).

Additionally, social support acts as a predictive factor for survival after calamities, as well as psychological recovery following trauma and catastrophes (Soko et al., 2021; Wu et al., 2022). Studies suggest that social support is crucial in minimizing adverse adaptive responses. In this study, "social support" refers to real or accessible societal resources during times of greatest need and the actual involvement of groups, which is overwhelmingly beneficial (Taser et al., 2022; Yuan et al., 2020). It should be noted that social support is distinct from, although it resembles, concepts such as connection, childcare, loyalty, and negative impact social connection (Zheng et al., 2018). For example, in the context of maternity care, it is measured as a reliable source of supportive family resources rather than general parenting after trauma, parental attitudes, beliefs, and inclinations.

Social assistance is considered beneficial when it serves the purpose of providing support, which differs from deliberate negative interactions with others (Taser et al., 2022). It must also be distinguished from actions taken individually by people as a coping mechanism. It has been argued in the past that it hurts our overall well-being as it impairs our relationships with others, our environment, and the broader world (Loureiro et al., 2022; Salo et al., 2022; Xiao et al., 2020). Conversely, repair or resilience occurs when individuals' sense of identity and relationships with others are enhanced or restored. This is known as the "social attribution" concept, where the availability of social resources, such as social support in this case, predicts health and the absence of which causes psychological distress. Several theories have been proposed to explain the process of transition under this concept (Loureiro et al., 2022). For example, the primary model suggests that social support effectively enhances our sense of regularity, identity, and positive affect, all of which are associated with well-being (Marais et al., 2020). However, the anxiety concept asserts that assistance primarily or largely protects individuals from stressful experiences by redefining their expectations and reducing the harm caused by the circumstances.

Previous studies have shown that social support has a negative influence on both work overload and

role ambiguity in video consultation for medicines (Borle et al., 2021; Yan et al., 2013). Based on this, the following hypotheses are proposed:

H_3a: Doctors' perception of social support has negative impact on perceived work overload in video consultation.

H_3b: Doctors' perception of social support has negative impact on perceived role ambiguity in video consultation.

2.4. Social presence with work overload and role ambiguity in video consultation

Social presence refers to the psychological closeness or feeling of being present in a medical consultation system (Kim et al., 2022). In healthcare practice, where collaboration is crucial, the effectiveness of video conferencing technology is limited if it is perceived as impersonal and lacking social interaction. The degree to which participants feel psychologically close or present in the medical consultation is referred to as social presence (Weidlich et al., 2022). Different technologies have varying capacities for conveying a sense of user participation and psychological connection (Osmers et al., 2021). The success of teleconsultations in medical practice relies on group participation, and if the video conferencing system is perceived as unfriendly and impersonal, its effectiveness is compromised (Marais et al., 2020). Telecommunications systems that provide more spoken or nonverbal cues and create a strong sense of social presence enable participants to feel mentally closer to one another, thereby increasing user satisfaction. Social presence can be practical, knowledge-based, and/or supportive, involving close relatives, colleagues, and workplaces (Bart-Plange et al., 2022).

The concept of social presence is multifaceted and can be understood in various ways, requiring careful description and evaluation. Previous studies have yielded mixed findings regarding the mediating impact of social presence (Cerami et al., 2021; Osmers et al., 2021). One possible factor is the lack of fulfillment of the "balance between consultation and social presence" concept in how social presence is constructed (Yan et al., 2013). Another significant factor is the lack of conceptual and methodological consistency (Zhao et al., 2021). Different dimensions of social presence are associated with specific processes and outcomes but not interchangeable with others.

Furthermore, due to a lack of social presence, clients may be uncertain whether efforts are being made to address technical concerns or the consultation process itself (Weidlich et al., 2022). According to the Stress and Coping Social Support model, social support directly impacts work overload and ambiguity in medical consultation. This finding has been supported by previous studies (Kim et al., 2022; Osmers et al., 2021). Doctors who receive adequate support from their peers during medical consultation services are more likely to fulfill their duties and have a better experience with the technology. Conversely, the inability to receive assistance from colleagues when facing technical problems can lead to a heavier burden for doctors in their consultation work (Wu et al., 2022). Doctors also express more frequent dissatisfaction when their professional activities are hindered by technical issues.

Previous studies have shown that social presence has a negative influence on both work overload and role ambiguity in video consultation for medicines (Osmers et al., 2021; Yan et al., 2013). Based on this, the following hypotheses are proposed;

H_4a: Doctors' perception of social presence has negative impact on perceived work overload in video consultation.

H_4b: Doctors' perception of social presence has negative impact on perceived role ambiguity in video consultation.

3. Methodology

Planned behavior theory and persons-environmental theory served as the foundation for the factors contributing to technostress and a study of video medical consultations in South European countries.

The current study focuses on examining the relationships among technical support, information availability, social support, social presence, work overload, and role ambiguity in video consultations for private doctors who offer the option of video medical consultations in South European countries.

It is important to assess the extent to which the medical consultation function is being used, as both clients and doctors may encounter different technological advantages and limitations. Additionally, the complexity of diseases and medical treatments is increasing, leading to hospital professionals specializing in specific areas of medicine. However, this specialization is often not adequately met by medical centers in rural locations. Furthermore, the proportion of individuals over the age of 80 in the EU27 is projected to double from 6.1% in 2020 to 12.5% in 2060 (Klumpp et al., 2021). Consequently, the healthcare system will experience an increase in senior citizens with their own unique health issues. In contrast, there is already a shortage of well-trained medical professionals, and many European countries are currently facing a scarcity of skilled workers such as doctors and physicians.

This contextual information provides the rationale for investigating the factors contributing to technostress in the specific context of video medical consultations in South European countries.

3.1. Participants

The participants in this study were medical professionals who were involved in a study of video medical consultations in South European countries. Data were obtained from doctors in South European nations. A total of 600 clinicians participated in the survey, and 330 responses were deemed relevant for analysis. Convenient sampling was used to select the sample, which involves capturing samples that are readily available or accessible (Hair Jr et al., 2021). Convenient sampling is advantageous when time is limited as it allows for quick and easy data collection. In this study, a cross-sectional, logical, quantitative approach was employed using surveys. This approach is expected to improve the generalizability of the results compared to random sampling. The survey was conducted between July 10 and August 25, 2022. All the physicians who responded to the study were native English speakers as English is frequently used as an academic language for doctors in South European countries. The participants voluntarily completed the online surveys and were informed about the study's objectives and their right to withdraw consent at any time. The study focused exclusively on private doctors offering video medical consultations in South European countries. Non-probability sampling based on a convenient sample approach was used, which was appropriate given the size and focus of the investigation.

3.2. Measurement Scale

An 18-item questionnaire was developed to measure the factors contributing to technostress in the context of video medical consultations in South European countries. The questionnaire includes items related to technical support, information availability, social support, social presence, work overload, and role ambiguity. Each scale consists of multiple items, rated on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

The scales used in the questionnaire were adapted from previous studies (Yan et al., 2013) and have demonstrated reliability and validity. The technical support scale comprises 3 items, measuring the perceived transmission velocity and symbol sets provided by the medical consultation system. The information availability scale consists of 2 items, assessing the support provided by the system for encoding information. The social support scale includes 3 items, gauging the assistance offered by co-workers. The social presence scale comprises 3 items, examining the perceived warmth and sociability of the medical consultation system. The role ambiguity scale consists of 4 items, evaluating the extent to which technical problems interfere with work responsibilities. Finally, the work overload scale consists of 3 items, measuring the perceived busyness and pressure due to the medical consultation

system.

The questionnaire items and response options were carefully designed to capture the relevant constructs and ensure comprehensive measurement of the factors contributing to technostress in video medical consultations.

4. Result

Based on a preliminary examination of respondent data, the demographic profile and descriptive statistics of the sample (N = 330) for the study are presented in Table 1 and Table 2, respectively. The measurement and structural models were evaluated using SmartPLS3, revealing significant impacts of private doctors in South European countries who offer video medical consultations on various factors.

Table 1: Demographic profile

	Description	Responses	%
Age	35-50	140	42
	50-70	190	58
Gender	Male	180	54
	Female	150	46
Occupation	Full Time	160	48
	Part Time	170	52
Experience	More than 3 years	185	56
	More than 4 years	145	44

In Table 1, it is observed that 42% of respondents were in the age range of 35-50, while 58% fell in the age range of 50-70. Among the doctors, 54% were male and 46% were female. Regarding occupation, 48% worked full-time and 52% worked part-time. In terms of experience, 56% of doctors had more than 3 years of experience, while 44% had more than 4 years.

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Technical Support	330	1	6	3.76	0.83
Information Availability	330	1	6	3.85	0.87
Social Support	330	1	6	3.98	0.99
Social Presence	330	1	6	3.58	0.69
Work overload in video consultations	330	1	6	3.82	0.88
Role ambiguity in video consultations	330	1	6	3.79	0.81

Table 2 presents the descriptive statistics of the study's variables. Descriptive statistics involve the analysis and summary of data to identify patterns and meet the study's requirements. The table includes the means, standard deviations, minimum, and maximum values for the six variables.

In summary, the descriptive statistics provide an overview of the demographic characteristics and the distribution of responses for each variable in the study, setting the foundation for further analysis and interpretation.

4.1. Measurement model

PLS-SEM was employed to evaluate the factor loadings, validity, and reliability of data collected from 330 private doctors in South European countries who offer video medical consultations. The results of the factor loadings, validity, and reliability of the items examined by the PLS measurement model are presented in Table 3.

Table 3: Composite reliability, Cronbach's Alpha and AVE values

Constructs	CA	CR	AVE
Technical Support	0.860	0.855	0.746
Information Availability	0.872	0.804	0.511
Social Support	0.741	0.777	0.531
Social Presence	0.848	0.774	0.556
Work overload in video consultations	0.707	0.837	0.631
Role ambiguity in video consultations	0.825	0.895	0.740

"Note: CR=composite reliability; AVE=average variance extracted; CA= Cronbach's Alpha

Cronbach's alpha and Cronbach's CR values for the variables considered exceeded the threshold of 0.70, indicating satisfactory internal consistency. Convergent validity was demonstrated, as the average variance extracted (AVE) values for discriminant validity were above 0.50. Additionally, the CR values ranged from 0.774 to 0.895, surpassing the threshold value of 0.70.

Table 4: Discriminant validity

	TS	IA	SS	SP	WOC	RAC
Technical Support	0.864					
Information Availability	0.384	0.715				
Social Support	0.324	0.356	0.657			
Social Presence	0.224	0.173	0.299	0.746		
Work overload in video consultations	0.336	0.394	0.403	0.191	0.794	
Role ambiguity in video consultations	0.499	0.508	0.456	0.182	0.487	0.860

To establish discriminant validity, we referred to the criteria proposed by Fornell and Larcker (1981). Moreover, the HTMT (Heterotrait-Monotrait) values were less than one, supporting the discriminant validity. Table 4 illustrates the HTMT values, confirming the discriminant validity.

Table 5: Assessment of R square

	R^2
Role Ambiguity in Video Consultation	0.253
Work Overload in Video Consultation	0.408

Furthermore, Table 5 provides the coefficient of determination (R^2) for the endogenous constructs. According to Hair Jr et al. (2021), R^2 values of 0.13 can be considered poor, 0.33 as moderate, and 0.67 as strong. In the current study, the R^2 value for work overload in video consultations is 0.408,

indicating a moderate relationship. Conversely, the R^2 value for role ambiguity in video consultations is 0.253, reflecting a weak relationship.

4.2. Structural Equation Model

The PLS-SEM bootstrapping method was employed to determine the structural model route coefficients and test the hypothesized correlations. The focus of the study was on private doctors in south European countries who offer video medical consultations. The findings of the analysis revealed significant negative relationships between various factors and the outcomes of work overload and role ambiguity in video consultations. Figure 3 shows the bootstrapping significance analysis results.

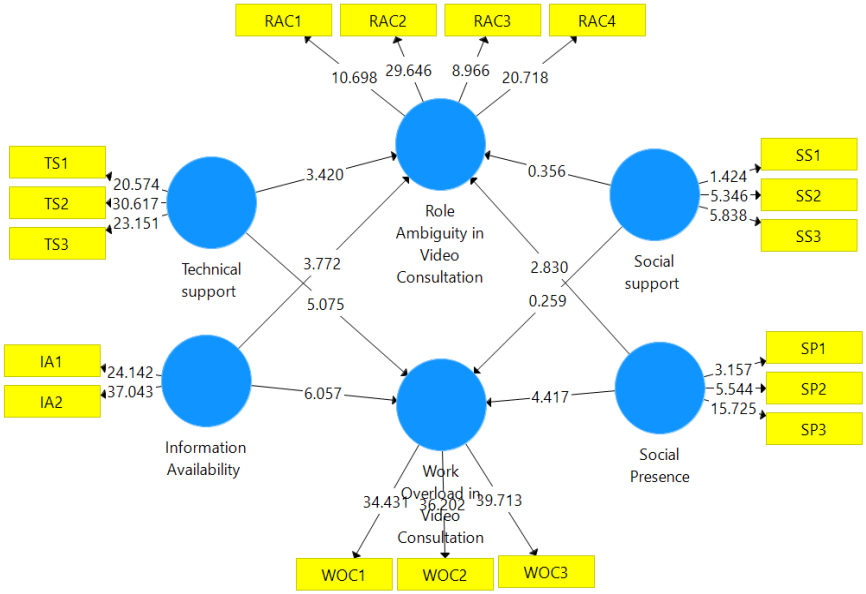

Figure 3: Assessment of PLS Bootstrapping

Firstly, a substantial significant negative relationship was found between technical support and work overload in video consultations (ß = -0.238, t = 3.420, p < 0.001). This indicates that higher levels of technical support are associated with lower levels of work overload, supporting hypothesis H1a. Similarly, a significant negative relationship was observed between technical support and role ambiguity in video consultations (ß = -0.282, t = 5.075, p < 0.000), providing evidence for hypothesis H1b. Furthermore, the analysis revealed a substantial significant negative relationship between information availability and work overload in video consultations (ß = -0.242, t = 3.772, p < 0.000), supporting hypothesis H2a. Similarly, a significant negative relationship was found between information availability and role ambiguity in video consultations (ß = -0.330, t = 6.056, p < 0.000), validating hypothesis H2b.

Moreover, the findings indicated a substantial significant negative relationship between social support and work overload in video consultations (ß = -0.221, t = 3.356, p < 0.002), providing support for hypothesis H3a. Additionally, a significant negative relationship was observed between social support and role ambiguity in video consultations (ß = -0.118, t = 2.259, p < 0.006), validating hypothesis H3b. Lastly, the analysis revealed a substantial significant negative relationship between social presence and work overload in video consultations (ß = -0.175, t = 2.830, p < 0.005), supporting hypothesis H4a. Similarly, a significant negative relationship was found between social presence and role ambiguity in video consultations (ß = -0.240, t = 4.417, p < 0.000), providing evidence for

hypothesis H4b.

These findings suggest that the factors of technical support, information availability, social support, and social presence significantly contribute to reducing work overload and role ambiguity in video medical consultations for private doctors in south European countries who offer this service. Detailed supported relationship results are presented in table 6.

Table 6: Direct Relation

	Original Sample	T Statistics	P Values	Decision
Technical support -> Role Ambiguity in Video Consultation	-0.238	3.420	0.001	Supported
Technical support -> Work Overload in Video Consultation	-0.282	5.075	0.000	Supported
Information Availability -> Role Ambiguity in Video Consultation	-0.243	3.772	0.000	Supported
Information Availability -> Work Overload in Video Consultation	-0.330	6.057	0.000	Supported
Social support -> Role Ambiguity in Video Consultation	-0.221	3.356	0.002	Supported
Social support -> Work Overload in Video Consultation	-0.118	2.259	0.006	Supported
Social Presence_ -> Role Ambiguity in Video Consultation	-0.175	2.830	0.005	Supported
Social Presence_ -> Work Overload in Video Consultation	-0.240	4.417	0.000	Supported

4. Discussion

The present study examined the factors contributing to technostress in the context of video medical consultations among private doctors in south European countries. The study focused on the influence of technical support, information availability, social support, social presence, work overload, and role ambiguity in video consultations. The findings revealed significant negative relationships between various factors.

Firstly, there was a substantial negative relationship between technical support and work overload in video consultations (ß = -0.238, $p < 0.001$). This supports the findings of Cerami et al. (2021) who emphasized the impact of support on data center usage. Insufficient technical and user assistance, as highlighted by Xiao et al. (2020), can contribute to the failure of medical consultations, further underscoring the importance of technical support. Secondly, the study found a significant negative relationship between technical support and role ambiguity in video consultations (ß = -0.282, $p < 0.000$). Inadequate technical support can lead to uncertainties and challenges in understanding roles and responsibilities during video consultations. Additionally, there was a significant negative relationship between information availability and work overload in video consultations (ß = -0.242, $p < 0.000$). HajiAhmadi et al. (2021) highlighted that insufficient information handling assistance can make tasks more difficult and create uneasiness in utilizing technology.

Furthermore, the study identified a significant negative relationship between information

availability and role ambiguity in video consultations (ß = -0.330, p < 0.000). Limited access to relevant information can contribute to uncertainties and ambiguities regarding the roles and expectations of participants in video consultations. Moreover, social support demonstrated a significant negative relationship with work overload in video consultations (ß = -0.221, p < 0.002). Marais et al. (2020) emphasized that social support, which encompasses attention and assistance from others, plays a crucial role in managing technostress. Finally, the study revealed a significant negative relationship between social presence and role ambiguity in video consultations (ß = -0.240, p < 0.000). The concept of social presence is multifaceted and can be understood in various ways, as discussed by Weidlich et al. (2022).

In summary, the findings of this study underscore the importance of technical support, information availability, and social support in mitigating work overload and role ambiguity in video medical consultations. Adequate technical assistance, efficient information handling, and strong social support systems are crucial for reducing technostress and ensuring the smooth utilization of video consultation technology.

4.1. Practical Implication

The findings of this study have practical implications for doctors, administrators, practitioners, and policymakers in the field of video medical consultation. The study highlights the high-stress nature of online consultations, particularly in emergency scenarios and situations where there is a sense of urgency from the families' perspective. It is crucial to address work overload and provide adequate support to doctors in video consultations. Additionally, promoting communication and collaboration among doctors can help them discuss challenging cases and seek guidance from their peers. Conducting joint surveys with key stakeholders, such as hospital managers, can further enhance the impact of the research by influencing organizational approaches to reduce doctors' stress levels and improve work efficiency. By combining statistically significant findings with empirical studies, confidence can be gained in the developed framework and its ability to analyze technostressors and their consequences effectively.

5. Theoretical Implications

The theoretical implications of this study extend to doctors and policymakers, encouraging them to broaden their focus beyond technical support, information availability, and social support in video medical consultations. The person-environmental theory and planned behavior theory provided the conceptual foundations for this study's framework. The study highlights the role of social support and social presence in alleviating stress and enhancing self-efficacy for medical professionals during video consultations. The involvement of family members in providing social support and understanding can significantly contribute to reducing stress levels. Building social connections and incorporating social aspects into the consultation process can have positive effects on doctors' well-being. Future research could explore the experiences of doctors from different countries to gain further insights into video consultation practices. Concrete suggestions provided by doctors in this study can guide the development of interventions aimed at improving the medical consultation process.

6. Limitations and future Research

While this research contributes valuable insights, certain limitations should be acknowledged and addressed in future studies. The study focused on small enterprises run by private doctors in South European countries offering video medical consultations, and the findings may not fully generalize to all contexts. Replication studies in video consultation settings, including diverse samples from various countries, are recommended to enhance the generalizability of the findings. Longitudinal study designs can provide a clearer understanding of causation, and exploring potential moderating and mediating

effects can further enhance the research outcomes. Additionally, future research could include a more diverse sample, considering factors such as part-time doctors, full-time doctors, and doctors from different backgrounds, areas of fellowship and practice, genders, beliefs, and levels of experience.

7. Conclusion

In conclusion, this study contributes to understanding the factors contributing to technostress in video medical consultations in south European countries. The framework developed in this study, based on a comprehensive literature review and practical interactions, provides insights into the relationship between technical support, social support, social presence, information availability, and techno stressors. The findings can serve as a starting point for future empirical investigations and have practical implications for healthcare professionals in terms of reducing occupational stress and improving hospital performance. Further research can refine and adapt this model for different technological contexts and conduct empirical investigations to validate its applicability. Continuous collaboration and evaluation procedures should be established to set realistic and achievable objectives for technology adoption. The development of structured consultation procedures that promote support interaction is crucial for the future of mental healthcare.

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Questionnaire

Variables	Items	Source
Technical support	1. I feel that medical consultation systems provide enough transmission velocity in telecommunication. 2. I feel that medical consultation systems provide enough symbol sets for me in telecommunication. 3. I feel that medical consultation systems provide enough channels in telecommunication.	(Yan et al., 2013)
Information availability	1. I feel that medical consultation systems provide enough support for me to encoding information to accomplish the task. 2. I feel that medical consultation systems provide enough support for me to decoding information to accomplish the task.	(Yan et al., 2013)
Social support	1. My co-workers offer me help when I need it. 2. When things becomes too much for me to handle, my co-workers are there to help me. 3. When I am worried, my co-workers help me.	(Yan et al., 2013)
Social presence	1. I feel that the medical consultation system is not cold. 2. I feel that the medical consultation system is sociable. 3. I feel that the medical consultation system is not private.	(Yan et al., 2013)
Role ambiguity in video consultation	1. I am unsure whether I have to deal with the medical consultation system problems or with my work activities. 2. I am unsure what to prioritize: dealing with the medical consultation system problems or my work activities. 3. I can NOT allocate time properly for my work activities because my time spent on the medical consultation system. 4. Time spent resolving the medical consultation system's problems takes time away from fulfilling my work responsibilities.	(Yan et al., 2013)
Work overload in video consultation	1. I feel busy or rushed due to the medical consultation system. 2. I feel pressured due to the medical consultation. 3. I am forced by this technology to do more work than I can handle.	(Yan et al., 2013)