Legal Standards for Physical Therapy Tele-Rehabilitation: Authority, Consent, Medical Records, Personal Data

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ABSTRACT

Tele-rehabilitation physiotherapy has developed as a form of electronic-based rehabilitation service that expands access and accelerates therapeutic communication. Changes in the service medium have given rise to the need for legality parameters that ensure services remain safe, orderly, and verifiable. This article examines the formulation of legal standards for tele-rehabilitation from the perspectives of professional authority, consent to treatment, and medical record keeping, and establishes parameters for legal accountability and health data protection in the relationship between patients, physiotherapists, and platform providers. The method used is normative jurisprudence with qualitative literature studies and thematic synthesis of health norms, electronic system norms, personal data protection norms, consumer protection norms, and civil contract principles. The results of the review show that tele-rehabilitation authority is vested in physiotherapists who are registered and licensed to practice, and who are required to work in accordance with physiotherapy service standards and SOPs that are adaptive to remote services. Consent for tele-rehabilitation is understood as a communication process that provides information about the objectives, procedures, risks, alternatives, limitations of remote services, and referral procedures, then stated in an electronic form that meets the requirements of a valid agreement and can be proven. Service records must be kept through medical records, including electronic medical records that guarantee integrity, security, confidentiality, and traceability of changes. In a tripartite relationship, the physiotherapist's responsibility centers on clinical standards of care, while the platform's responsibility centers on system reliability, security, and data processing for legitimate purposes. Health data protection is established through explicit consent, purpose limitation, data minimization, access control, incident notification, and fulfilment of data subject rights. Remedies include administrative sanctions, civil claims for damages, and the application of criminal provisions for certain violations. This article emphasizes the need for a clear division of roles between clinical service providers and technology providers, as well as documentation and security designs that strengthen legal certainty for all parties.

INTRODUCTION

The development of information technology-based healthcare services has prompted changes in the way healthcare professionals design therapeutic relationships, document actions, and account for clinical decisions. Issues of electronic documentation and clinical accountability in digital services are also closely related to the legal framework of electronic medical records, which demands validity, data integrity, and accountability of healthcare professionals in every clinical decision (Kholis et al., 2023). In physical rehabilitation services, these changes are noticeable because physiotherapy relies on functional assessment, progress monitoring, instructional communication, and exercise compliance, which are typically established through face-to-face meetings. When services move to digital media, the professional relationship between patients and physiotherapists continues, but its form shifts to data exchange, motion recording, audiovisual instructions, and device-generated information-based decision-making (Lange & Danielsson, 2023). In this context, legal protection for patients becomes crucial because negligence or lack

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of information in digital services has the potential to cause harm that places patients in a legally vulnerable position (Lethy et al., 2023). This transition places legality as a determining factor, because the quality of services cannot be separated from certainty about who has the authority to intervene, how consent for actions is recorded, and how patient confidentiality is protected. Global literature in the early 2010s has interpreted telemedicine as a service space that offers opportunities for access while raising serious questions about professional responsibility, patient safety, and clinical data governance (WHO, 2010).

Tele-rehabilitation, as part of telemedicine, changes the structure of proof of service delivery. In face-to-face practice, proof of action often relies on medical records, progress notes, and clinical witnesses at health facilities. In digital practice, proof can extend to application logs, consultation recordings, proof of instruction delivery, sensor parameters, and proof of identity authentication. These materials have clinical and legal value, but are vulnerable to alteration, misuse of access, or loss of audit trails. At this point, legal standards are a prerequisite to prevent digital services from becoming ambiguous service relationships: patients receive interventions, but the basis of authority and accountability is not clearly defined. Modern biomedical ethics emphasize that clinical actions require a consent structure that respects autonomy, provides adequate information, and considers benefits and risks, including those arising from the means of service delivery (Beauchamp and Childress, 2009). These principles are relevant because tele-rehabilitation adds new types of risks related to media, information security, and the limitations of remote examination.

In Indonesia, tele-rehabilitation faces legal certainty demands on several levels simultaneously: the definition of health services, professional practice boundaries, competency standards, recording obligations, health data privacy protection, and oversight mechanisms (Jannati, 2022). Telemedicine regulations in Indonesia emphasize the importance of patient safety standards, clarity of healthcare personnel authority, and legal protection mechanisms in all forms of technology-based healthcare services (Sasmita et al., 2023). Although digital services are often associated with speed and convenience, legal regulations require clarity in terminology and classification of clinical activities. For example, exercise instructions can be understood as education, but under certain conditions, they can become therapeutic interventions that require assessment, physiotherapy diagnosis, therapy plans, and structured evaluation. This shift in the meaning of actions is what makes the discussion of "tele-rehabilitation and legality standards" require a careful reading of norms, professional definitions, and the consequences of liability in the event of injury, mishandling, or information leaks. In rehabilitation services, these risks are also related to variations in patient conditions, comorbidities, mobility limitations, and the patient's ability to follow instructions independently, so that the design of digital services must include clinical and legal safeguards that are in line with this.

The issue of tele-rehabilitation legality becomes more apparent when patients interact with multiple service providers: hospitals, clinics, digital health platforms, device providers, and cloud computing providers (Budiyanti & Herlambang, 2021). This situation indicates that the validity of documents, professional identities, and the authority of healthcare personnel are key elements in preventing abuse of authority in digital healthcare practices (Hartika et al., 2023). This chain of providers raises questions about who is the "organizer" and who is the "person in charge" when patient data is processed, stored, or analyzed. These changes challenge the concept of medical confidentiality, which has been built on the relationship between patients and healthcare professionals, as data can be transferred to third parties who are not present in the consultation room. The literature on privacy in the digital age explains that a person's identity can be reconstructed through data traces, and the risk of loss often arises from the combination of data from multiple sources that initially appear to be non-sensitive (Solove, 2004). In tele-rehabilitation, data traces can include motion videos, musculoskeletal complaint histories, locations, and activity habits, so legality standards must consider data protection as part of patient safety. Clarity of service contracts, access arrangements, audit logs, and data retention are elements that link clinical practice with legal norms.

At the professional level, physiotherapists who provide digital services face demands for role adaptation (Guy et al., 2021). From a health law perspective, exceeding or blurring professional authority in digital services can be classified as a violation of authority that has an impact on the legal responsibility of health workers (Subhi et al., 2023). They need to maintain the quality of assessments, manage patient expectations, and ensure that therapeutic communication remains effective even without direct clinical contact. This adaptation can

add to cognitive and psychological burdens, especially when physiotherapists have to assess the risk of falls, pain, or movement limitations through a screen, then decide whether patients are eligible for remote services or should be referred for direct examination. When these decisions are made, the legal dimension acts as a safeguard: clinical decisions require a basis of authority, professional standards, and accountable documentation. Legal standards, therefore, need to be understood as a set of normative requirements that keep professional relationships auditable, testable, and recoverable when disputes arise. This study leads to more specific questions about how tele-rehabilitation services are structured to align with applicable health law and professional norms, while maintaining patient dignity through informed consent and information protection.

Tele-rehabilitation raises questions about the legitimacy of clinical actions when therapeutic interactions take place via digital media (Gandole & Yadav, 2022). This legitimacy includes the validity of consent, the adequacy of information provided to patients, and professional standards of care when assessments are conducted remotely. In biomedical ethics, consent is understood as a process, not merely a document, so the quality of consent depends on patient understanding, freedom of choice, and clarity of relevant risks (Beauchamp and Childress, 2009). In tele-rehabilitation, relevant risks include limitations in examination, dependence on connection quality, limitations in clinical observation, and the potential for misinterpretation of exercise instructions. The problem is that when consent is obtained through an application or text message, the communication process can be fragmented, and proving that the patient understands the information becomes more complicated. This complexity increases when the service platform presents consent as a quick click, even though the substance of consent requires adequate explanation and the opportunity to ask questions.

The next issue relates to the confidentiality and privacy of health data produced during tele-rehabilitation. These services often rely on video recording, photo transmission, or the use of motion monitoring devices, which means that clinical data is stored in various systems. The digital privacy literature emphasizes that the greatest risks often do not arise from a single piece of data, but rather from the aggregation, indexing, and reuse of data for purposes beyond the expectations of the data subject (Solove, 2004). In tele-rehabilitation, patients may suffer harm if their movement or musculoskeletal condition data is used for risk profiling, marketing, or certain eligibility assessments without clear consent. This issue extends beyond data leaks to questions about access limits, retention periods, and patients' rights to control their data. When data is spread across platform providers and infrastructure providers, the boundaries of responsibility become blurred, and enforcing confidentiality obligations requires careful normative reading.

Another issue arises in professional accountability and proving service standards in the event of a dispute. Tele-rehabilitation can expand the reach of services, but it also extends the causal chain if patients are injured while performing independent exercises. In clinical ethical assessment, professional obligations include selecting proportionate and safe interventions, as well as adequate supervision according to the patient's condition (Beauchamp and Childress, 2009). In remote services, the normative question is how to measure "adequacy" when supervision takes place via video, messages, or standardized exercise modules. In addition, evidence takes the form of digital records that are vulnerable to disputes over their authenticity, completeness, and chronological order. This raises issues about documentation standards and audit trails, including who is authorized to alter records, how corrections are recorded, and how data integrity is maintained. Unclear standards of evidence can reduce legal certainty for patients and physiotherapists, as disputes will depend on inconsistent interpretations of digital service evidence.

Tele-rehabilitation is developing as people increasingly use digital devices to seek healthcare services, consult with professionals, and monitor their physical condition. This growth is accelerating the convergence of professional norms and technological norms, meaning that legality cannot be positioned as an administrative supplement. Legality determines the boundaries that distinguish healthcare services from health content, differentiate general education from therapeutic interventions, and separate professional relationships from ordinary commercial relationships. In the field of physiotherapy, these boundaries are crucial because exercise interventions can be beneficial, but can also cause injury if incorrectly indicated or instructed. When services are marketed through platforms, the public easily assumes that all forms of "consultation" are clinical services equivalent to face-to-face consultations, even though the degree of examination and supervision differs. A normative study is needed so that the legal standards for tele-rehabilitation can be clearly formulated, applied by service providers, and

understood by patients as a protection of their rights.

This topic is also important because tele-rehabilitation places personal health data at the center of the service process. As part of consumer protection in the health sector, patients have the right to obtain assurance that digital services are carried out in accordance with legal and professional standards that protect their safety, privacy, and rights (Setiawan et al., 2023). Health data is sensitive and can affect a person's dignity, social relationships, and economic choices. Privacy risks in digital services are related to platform design, business models, and infrastructure security. Privacy literature has shown that system architecture can create significant information asymmetry between providers and users, making it difficult for users to understand where their data is flowing and what it is being used for (Solove, 2004). In tele-rehabilitation, this asymmetry can increase because patients need services to restore bodily functions, so their bargaining position tends to be weak when faced with lengthy and technical service terms. Therefore, the discussion of legality standards needs to link professional obligations, confidentiality obligations, and reasonable consent requirements so that digital service relationships continue to respect patients' rights and maintain the quality of physiotherapy practice.

This study aims to formulate a normative legal framework regarding the legal standards of physiotherapy tele-rehabilitation by examining the elements of professional authority, consent to treatment, service recording standards, legal liability, and health data protection in the relationship between patients, physiotherapists, and platform providers. The results of this research are expected to produce a mapping of norms that can be used to assess the compliance of tele-rehabilitation practices with health law obligations and professional obligations, as well as to provide material for the formulation of compliance standards for service providers so that the protection of patient rights and certainty for health workers can go hand in hand.

RESEARCH METHOD

This study utilizes a normative legal method with a qualitative literature review design oriented towards the analysis of norms and legal doctrines related to tele-rehabilitation physiotherapy. Primary legal materials are understood as laws and regulations governing the practice of health workers, the provision of health services, medical records, electronic transactions, and personal data protection, while secondary legal materials include academic books and scientific articles that explain the concepts of telemedicine, professional responsibility, and the ethics and privacy of digital health services. The literature framework was structured as a rigorous and traceable review, with an emphasis on source quality and argument traceability. To maintain orderly reasoning, the literature search was guided by the principles of structured review, which requires transparency in the selection, grouping, and use of references so that the synthesis can be tested by readers (Tranfield et al., 2003; Webster and Watson, 2002).

The search strategy was conducted through academic databases and official publisher portals, accompanied by forward and backward citation tracking of key articles. Keywords were designed in two broad clusters: a services cluster (e.g. "tele rehabilitation", "telerehabilitation", "telemedicine", "physiotherapy", "remote consultation") and a legal and governance cluster (e.g. "health law", "medical liability", “informed consent”, “medical records”, “privacy”, “data protection”, “electronic health”). Inclusion criteria included reputable journal articles and academic books that had a DOI or ISBN and were available on the publisher's official website, with a focus on publications that helped to develop concepts and test normative arguments regarding legality and accountability. Exclusion criteria included sources without verifiable bibliographic identities, popular opinion pieces, and documents that were not accessible through official channels. To avoid spurious references, each candidate reference was double-checked on the publisher's website or DOI registry, and only sources that passed verification were used (Webster and Watson, 2002).

Synthesis was conducted using thematic synthesis to group normative ideas and legal issues into themes that directly addressed the problem formulation. The coding stage began with repeated reading, marking units of meaning, and then grouping codes into stable themes, such as professional authority, consent to action, recording standards, legal responsibility, and protection of personal health data. The procedure for developing themes followed the guidelines for thematic analysis, which emphasized traceability from the text data to the themes and consistency in the definition of themes throughout the writing process (Braun and Clarke, 2006). Quality assurance was carried out through a work trace audit: recording the reasons for inclusion and exclusion, a list of themes and their definitions, and a table mapping the legal material to the analysis themes. The

coherence of the argumentation is maintained by checking whether each normative conclusion is supported by written norms and relevant academic literature, and by ensuring that no factual claims exceed the limits of source support.

RESULT AND DISCUSSION

Legal Standards for Physical Therapy Tele-Rehabilitation: Authority, Approval, and Service Recording

The development of technology-based healthcare services requires clear norms that can guarantee certainty and accountability. Legal certainty for healthcare professionals, such as nurses and physiotherapists, is important to protect professionals in digital clinical practice, while also protecting patients' rights so that there are no service irregularities (Yulius et al., 2023). The legal standards for physiotherapy tele-rehabilitation services in Indonesia need to be established as a set of norms that provide certainty about who is authorized to provide services, how consent for treatment is obtained, and how services are recorded as verifiable evidence. Tele-rehabilitation can be understood as physical rehabilitation services conducted through electronic systems, ranging from initial assessments based on remote communication, exercise programmed planning, movement technique education, progress monitoring, to outcome evaluation (Kuswardani & Abidin, 2023). The legal protection framework must also take into account patients who are less fortunate, so that their rights are protected when receiving digital health services, thereby preventing injustice in access and quality of services (Noor et al., 2023). Because interactions occur through digital media, the measure of legality shifts from simply "the existence of services" to "the existence of a legal structure that ensures accountability". This structure rests on three pillars. The first pillar is the professional authority inherent in physiotherapists as health workers, which requires registration and practice licenses, as well as restrictions on actions according to competence. Non-compliance with professional authority can also give rise to legal liability if patients experience undesirable events, such as injuries or complications, so that legal standards must protect both health workers and patients (Riyanto et al., 2023). The second pillar is informed consent as a safeguard for patients' rights to understand procedures, benefits, risks, options, and limitations of remote services. The third pillar is the recording of healthcare services in medical records, including electronic medical records, which contain identity, assessment, programmed plans, interventions, evaluations, and follow-ups. In addition, hospitals and healthcare facilities have a legal responsibility to ensure that services are not disrupted due to information system failures, which have implications for patient data security and accuracy (Yatno et al., 2023). These three pillars are interlocking, as authority without consent creates a relationship prone to disputes, consent without documentation weakens evidence, and documentation without authority gives rise to service practices that can be classified as unlawful. This initial framework places legality as the main foundation for the acceptance of tele-rehabilitation as a health service.

The national health legal framework provides a normative basis for the development of technology-based services. Law No. 36 of 2009 on Health serves as an umbrella that affirms that health services are efforts to maintain and improve health, and require safe, high-quality, and responsible implementation (Afrilies & Naili, 2023). In the context of tele-rehabilitation, the norms in the Health Law are important because they place patients as subjects who have rights, including the right to information and the right to safe services. Legal standards are then interpreted as a consequence of the obligation of providers and health workers to fulfil these rights in a verifiable manner. The Health Law also requires health services to keep pace with developments in science and technology, but these developments do not eliminate the need for regulation. For tele-rehabilitation, this mandate can be interpreted as an obligation to assess the suitability of patients for remote services, assess the risks of independent exercise, and prepare referral mechanisms to face-to-face services when needed. The Health Law encourages service standards and quality control, so that tele-rehabilitation that is carried out without operational standards, without verification of the identity of health workers, or without a mechanism for reporting adverse events, is difficult to maintain as a qualified health service. Thus, the Health Law provides a normative basis that tele-rehabilitation must be organized as a standard-compliant health service, not as general communication that is free from professional accountability. This position emphasizes that technological innovation must go hand in hand with the fulfilment of legal obligations in healthcare services.

The dimension of professional authority is the starting point for assessing the legality of every clinical action. In clinical practice, the authority of healthcare personnel must be in line with the

principles of patient autonomy and professional responsibility, including criminal law considerations in the event of a breach of the therapeutic contract (Feriadi et al., 2023). From the pillar of professional authority, Law Number 36 of 2014 concerning Health Workers emphasizes the status of physiotherapists as health workers who practice in accordance with their competence, professional standards, service standards, and standard operating procedures (Kuswardani & Abidin, 2023). This law positions registration as an instrument indicating that an individual has met certain requirements to practice, and a license as an administrative instrument permitting practice in specific locations and under specific conditions. Tele-rehabilitation does not alter this fundamental status. This means that remote services must still be provided by physiotherapists with valid registration and practice licenses, as authority derives from regulations, not from technical proficiency in using applications. The Health Workforce Law also places guidance and supervision as a systemic obligation, so that tele-rehabilitation conducted through platforms must ensure there are internal control mechanisms, including verification of physiotherapist credentials, account access control, and regulations ensuring that the actions provided are in accordance with competencies. In a normative analysis, if tele-rehabilitation services are provided by parties who do not have the authority, then the service relationship loses its legal basis from the outset. The consequences may arise in the administrative and liability spheres, as patients receive services that appear clinical, but the providers do not meet the qualifications required by law, thereby increasing patient protection risks and reducing legal certainty. This description shows that professional authority is an existential requirement for the validity of tele-rehabilitation.

Service standards serve as a measure of the substance of the authority possessed by health workers. In addition, legal protection also needs to cover immunization practices or post-immunization actions that may cause side effects, so that patients receive adequate compensation or supervision (Riyanto et al., 2023). Minister of Health Regulation No. 65 of 2015 concerning Physiotherapy Service Standards clarifies the dimensions of authority through service standards attached to the physiotherapy profession. This Minister of Health Regulation can be read as a guideline that determines what physiotherapists must do in their services, starting from assessment, determining physiotherapy problems, preparing intervention plans, implementing interventions, education, to evaluation. In tele-rehabilitation, these standards remain the benchmark, but the means of fulfilling them need to be adapted to the characteristics of the medium. For example, remote assessments must be designed so that subjective and objective data remain adequate, with protocols for patient identity verification, guidelines for safe motion video capture, and criteria for when remote assessments are considered sufficient and when patients should be referred for direct examination. Permenkes 65 of 2015 also relates to standard operating procedures that guide service consistency. In tele-rehabilitation, SOPs need to include specific steps, such as checking the readiness of the exercise environment at home, monitoring the risk of falls, instructions to stop exercising when danger signs appear, and an escalation flowchart if patients report symptoms that indicate an emergency. Normatively, tele-rehabilitation that disregards these procedural standards may be deemed non-compliant with physiotherapy service standards, thereby undermining the substantive justification for the formal authority of the profession if the quality of care fails to meet standard benchmarks. Affirming these standards ensures that technological adaptation does not compromise the quality of physiotherapy services.

Remote healthcare practices cannot be separated from normative references that regulate professional relationships and clinical management. In hospitals, service disruptions due to information system failures are also a legal responsibility, so digital services must be equipped with technical risk mitigation mechanisms (Yatno et al., 2023). Law No. 29 of 2004 on Medical Practice is often cited as the primary reference in discussions on telemedicine because it contains principles governing professional practice, doctor-patient relationships, competency requirements, and the importance of medical records and informed consent. In telemedicine services, the examination stage is limited to interviewing the patient; doctors cannot perform physical and mental examinations on patients (Prasetyo & Prananingrum, 2022). Although physiotherapists are not the main subject of the Medical Practice Law, the norms contained therein remain relevant as a systemic comparison, especially when tele-rehabilitation is carried out in health facilities that provide interprofessional medical services, or when the rehabilitation programmed is part of a treatment plan involving doctor. Legally, this law helps to

emphasize that clinical actions in health services, including actions that affect the patient's body, require accountable governance.

In tele-rehabilitation, the connection with the Medical Practice Law is strengthened at two points. First, when telerehabilitation is carried out based on a medical referral or diagnosis, interprofessional coordination needs to be documented so that lines of authority and responsibility do not overlap. Second, when patients consider telerehabilitation to be part of comprehensive medical services, communication, explanation, and documentation standards need to be in line with the principles of orderly clinical practice governance. Therefore, the Medical Practice Law can be used to emphasize that tele-rehabilitation must be positioned as a disciplined health service, not a general consultation service that is free from the obligations of documentation, explanation, and risk management. This comparative position of the Medical Practice Law enriches the legal framework of tele-rehabilitation without blurring the boundaries of physiotherapists' professional authority.

Consent to treatment is a crucial point that links professional authority with the protection of patient rights. Legal standards need to accommodate patients, including nurses and midwives, so that their autonomy and rights are respected in therapeutic contracts, while reducing the risk of litigation (Vitrianingsih et al., 2023). Informed consent in tele-rehabilitation needs to be formulated as a communication process that meets legal and ethical requirements and is in line with the principles of patient rights protection in the Health Law and the principles of clinical practice governance recognized in the Medical Practice Law (Adhalia, 2023). Consent in rehabilitation services is often understood as consent to exercise programmers, education, and movement-based interventions that may cause temporary pain, fatigue, or risk of injury if performed without proper supervision.

In tele-rehabilitation, the obligation to provide explanations becomes more stringent due to the limitations of remote examination and control of the patient's environment. The consent process must include information about the purpose of the service, the assessment stages, the form of intervention to be provided, equipment requirements, exercise space requirements, potential risks, criteria for discontinuing exercise, procedures for reporting adverse events, and options for obtaining face-to-face services. The consent must also emphasize the limitations of remote services, for example, stating that certain conditions require direct examination. Normatively, consent obtained through a brief statement or a general click-through agreement without adequate explanation poses problems because the element of "given consciously" becomes difficult to prove. Thus, legal standards require a substantive, structured, and traceable informed consent design so that patients' rights to information are protected and healthcare professionals have a strong basis for action. Placing informed consent as a communication process shows that the legality of tele-rehabilitation relies on the quality of understanding, not just the formality of consent.

The legal binding dimension of consent to treatment becomes increasingly relevant when services are provided through electronic means. In tele-rehabilitation, consent to treatment can be given electronically as long as it meets the requirements for a valid agreement under the Civil Code and complies with the provisions on electronic information or documents in Law No. 11 of 2008 on Electronic Information and Transactions, as amended by Law No. 19 of 2016. Under the Civil Code, requirements such as agreement between the parties, competence, specific object, and lawful cause form the framework for assessing whether digital consent is truly born of free will and sufficient understanding.

Under the ITE Law, electronic documents and electronic information are recognized as valid legal evidence, so that consent in the form of consent recordings, digital forms, or electronic signatures can be used as long as the system complies with the relevant provisions. The practical implication is that tele-rehabilitation providers need to ensure patient identity authentication, recording of the time of consent, the approved version of the consent document, and a mechanism that prevents untraceable changes to the document. In addition, patients need to be given the opportunity to ask questions before agreeing, which in tele-rehabilitation can be facilitated through synchronous explanation sessions, forms containing a summary of the main risks, and a record that the patient has received answers to their questions. By basing consent on the Civil Code and the Electronic Information and Transactions Law, the legal standards for tele-rehabilitation establish consent as a valid agreement and as testable evidence, thereby providing normative certainty to the therapeutic relationship. The connection between civil law and the electronic regime confirms that digital consent is not outside the legal

system, but rather an accountable part of it.

Specific regulations regarding remote healthcare services form the next basis for determining the legality of tele-rehabilitation as part of the healthcare system. Regulations from the Minister of Health regarding telemedicine need to be included because tele-rehabilitation falls under the category of remote healthcare services that use technological means. Telemedicine regulations that emphasize service management, practitioner qualifications, security, and implementation mechanisms serve as a reference for assessing whether tele-rehabilitation is provided as an appropriate healthcare service. In a normative legal analysis, the points that must be examined include the definition of telemedicine services, the scope of permitted activities, the prerequisites for service providers, and the obligation to maintain patient confidentiality and safety.

Tele-rehabilitation needs to be positioned as a service that has operational standards, service flows, and service limitations in accordance with the capabilities of remote facilities (Suwadi et al., 2022). If telemedicine regulations require implementation through health care facilities, then tele-rehabilitation organized by platforms without ties to facilities and without service managers can cause legality problems. If telemedicine regulations require specific recording and reporting, then tele-rehabilitation must adjust its application system to meet these obligations. By binding tele-rehabilitation to telemedicine regulations, legality becomes more than just an "internet-connected" service, but rather a service that follows health governance, including quality governance, patient safety, and oversight mechanisms. This analysis leads to the demand that tele-rehabilitation needs to have a service design that is compatible with telemedicine provisions, including referral arrangements, consultation flows, and limits of responsibility. The telemedicine regulatory framework serves as a signpost that ensures that innovations in remote rehabilitation services remain within the structured and supervisee path of health law.

As part of the governance of remote healthcare services, the aspect of record-keeping plays a central role in maintaining the traceability of clinical actions. The recording of healthcare services in tele-rehabilitation is strongly based on medical record requirements. Minister of Health Regulation No. 24 of 2022 concerning Medical Records stipulates that all healthcare services must be recorded in medical records, including services provided through electronic means. In tele-rehabilitation, medical records must include patient identity, physiotherapy assessment results, established diagnoses or functional problems, rehabilitation programmed plans, exercise instructions given, patient responses, periodic evaluation results, and follow-up plans. This Minister of Health Regulation also requires the management of electronic medical records, including the principles of integrity, security, confidentiality, and availability when needed for follow-up services. Normatively, recording cannot be replaced by unstructured application conversations, as medical records must be readable as complete clinical records and can be used as a basis for subsequent decisions. Since tele-rehabilitation often generates additional data such as exercise video recordings or motion photos, legal standards require clear policies on whether such data is part of the medical record, how it is stored, who has access to it, and how long it is stored. The Minister of Health Regulation on Medical Records provides a framework to ensure that tele-rehabilitation documentation does not become unstructured archives, but rather clinical records that meet legal requirements and support service quality. At this point, documentation serves not only as an administrative obligation, but also as the foundation of clinical accountability.

Strengthening the evidentiary value of electronic medical records positions documentation as a strategic legal instrument. The recognition of electronic documents as evidence under the Electronic Information and Transactions Law strengthens the position of electronic medical records in tele-rehabilitation as an instrument of proof in the event of a dispute. However, this recognition requires a quality information system that maintains data integrity. In tele-rehabilitation, legal standards for recording must include an audit trail showing when the data was created, who created it, what changes were made, and the reasons for the changes. Records that can be altered without a trail will weaken the evidence, as the disputing parties can question the authenticity and chronology.

In addition, the records must demonstrate clinical rationality, such as the reasons for the choice of exercises, exercise dosage, movement restrictions, and safety instructions. With strong medical records, healthcare professionals are protected from allegations of negligence because there is evidence that the actions were taken in accordance with service standards and patient information. Patients also gain protection because they can trace what has been done, what has been

promised, and what the follow-up plan is. Because tele-rehabilitation involves digital media, documentation standards need to emphasize the separation between general educational material and individual instructions that are part of clinical services. Individual instructions must be recorded as part of the intervention, while general material can be recorded as educational material provided. This distinction is important so that medical records represent actual clinical actions and can be assessed professionally. This type of documentation construction shows that medical records serve as a bridge between clinical practice and legal evidence.

The expansion of the use of electronic systems has serious consequences for the protection of patient health data. Tele-rehabilitation involves the widespread use of electronic formats to store medical records and document diagnoses, prescriptions, and follow-up appointment details. Currently, electronic medical records can store more in-depth personal details about an individual than any single document (Alenoghena et al., 2023). The protection of personal health data in tele-rehabilitation relates to the confidentiality of medical records and information security. The ITE Law regulates general principles regarding the operation of electronic systems, including the obligation of operators to maintain reliability, security, and responsibility for system operation.

In addition, regulations in the communications and information technology sector regarding personal data protection, including the Minister of Communications and Information Technology Regulation on Personal Data Protection in Electronic Systems, are relevant because tele-rehabilitation processes sensitive health data. The legal standards for tele-rehabilitation must include role-based access control, encryption of data transmission, password policies and double authentication where necessary, as well as incident handling procedures. Patient consent regarding data processing needs to be separated between consent for clinical actions and consent for data processing, so that patients understand what is being processed, for what purpose, who the data recipients are, and how long the data will be stored. Provisions on confidentiality must also be translated into platform policies regarding the use of third parties, such as cloud storage, analytics, or messaging service providers. If processing is carried out by another party, there must be a clear basis and adequate contractual safeguards, as data leaks can cause significant harm to patients. Thus, data protection is not an administrative addition, but part of the legality standards of tele-rehabilitation that determine whether or not the service can be provided safely. This regulation places data security as an inherent element of the quality of tele-rehabilitation services.

In addition to technical and ethical dimensions, the legality of services is also tested through the administrative compliance of the organizer. Clarity of the roles and responsibilities of the organizer is important, including royalty schemes or service platform franchise agreements, so that the legal relationship between the provider and the facility remains transparent (Putra & Wibowo, 2023). In the realm of administrative law, the legality standards for tele-rehabilitation require clarity regarding service providers and operational permits. The regulation governing administrative responsibilities and applicable to doctors in telemedicine services is Regulation of the Minister of Health of the Republic of Indonesia Number 2052/MENKES/PER/X/2011 (Sanusi et al., 2023).

Tele-rehabilitation organized by healthcare facilities must be ensured to be within the scope of the facility's operational license, have a service manager, and have SOPs that are in line with physiotherapy service standards and telemedicine provisions. If tele-rehabilitation is carried out through a platform, the relationship between the platform and the healthcare facility and healthcare workers must be clearly stated, as healthcare obligations are generally attached to providers under the healthcare licensing regime. The legal standard at this point can be formulated as an obligation to ensure that remote services have an address of responsibility, a complaint mechanism, and a referral process. The Health Law provides the basis that health services must be supervisee, so that tele-rehabilitation that does not have a supervisory structure and administrative accountability will find it difficult to meet legal standards. At the operational level, licensing relates to the place of practice and the legitimacy of actions. Physiotherapists who conduct tele-rehabilitation need to ensure that services are provided through a scheme that is in accordance with their practice license, and that the use of electronic means is under the facility's policy or valid practice policy. The aim is to ensure that patients do not encounter services that appear official but do not have a responsible party who can be held accountable when problems arise. This administrative clarity keeps remote services within the corridor of state supervision.

The aspect of legal liability is the final layer that reveals the consequences of violating standards. In

the realm of criminal law and liability, violations of the legality standards of tele-rehabilitation can lead to serious consequences, especially if there is negligence that causes injury or if there is a violation of data confidentiality. Regarding criminal liability, doctors in telemedicine services, as providers of electronic information, will face criminal sanctions if they violate the above prohibitions (Watulingas et al., 2023). Criminal assessment generally requires certain elements, but from a preventive perspective, compliance with professional authority, consent to action, and good record-keeping serve as safeguards so that clinical actions can be accounted for and risks can be managed. If services are provided by parties who are not authorized under the Health Personnel Act, the issue goes beyond professional ethics and can be considered a violation of statutory regulations. If services are provided without proper consent, violations of patient rights can give rise to legal claims and weaken the position of health workers because there is no testable basis for agreement. If service records are neglected, proof of what was done becomes unclear, and disputes are more likely to arise because there is no objective record. In tele-rehabilitation, records also need to include risk warnings and safety instructions, so that if a patient violates the instructions, it can be seen in the documentation. At this point, legal standards can be formulated as preventive measures that maintain service quality and ensure legal certainty for patients and physiotherapists. This preventive approach places legal compliance as part of service risk management.

All of the above discussions show the close relationship between the elements of tele-rehabilitation legality. The entire description shows that the formulation of tele-rehabilitation legality standards for physiotherapy is built through the integration of professional authority norms, treatment consent, and medical records, all of which must run simultaneously for tele-rehabilitation to become a legitimate and verifiable health service. The Health Law provides an umbrella for patient rights and the obligation to provide safe and quality services. The Health Workers Law affirms the basis of physiotherapists' authority through registration, licensing, and restrictions on actions in accordance with professional competencies and standards. The Minister of Health Regulation on Physiotherapy Service Standards provides a measure of service substance, so that tele-rehabilitation does not fall into the category of exercise instructions that are detached from assessment and evaluation. Consent for treatment is formulated as a communication process that complies with the principle of patient protection, then reinforced through the legal requirements of civil law agreements and the recognition of electronic evidence according to the Electronic Information and Transactions Law. Service records are mandatory and guided by the Minister of Health Regulation on Medical Records, so that remote services have a proper track record that can be used for service continuity and evidence. Telemedicine regulations provide guidelines for the management of remote services, while data protection regulations and electronic system regimes require the security and confidentiality of patient information. With this framework, the legal standards for tele-rehabilitation can be formulated as normative guidelines that provide certainty for patients and physiotherapists, while maintaining the quality of rehabilitation services in digital format. This set of norms positions tele-rehabilitation as a legitimate, structured, and legally accountable healthcare service.

Legal Accountability and Protection of Personal Health Data in Tele-Rehabilitation

Legal accountability in tele-rehabilitation needs to be understood through a framework of relationships involving more than one legal subject. Legal accountability in tele-rehabilitation physiotherapy in Indonesia needs to be read as a tripartite construction connecting patients as service recipients, physiotherapists as health professionals, and platform providers as electronic system providers (Abidin, 2018). This framework must also take into account special patient groups, including persons with disabilities, so that access to services remains in accordance with their legal rights (Subiakso et al., 2023). This construction requires mapping the different sources of obligations for each actor, then aligning the parameters of fault, causality, and loss to determine who bears responsibility when injuries occur, services fail, or health data is leaked. Law No. 36 of 2009 on Health provides the basis that health services contain obligations of safety, quality, and respect for patient rights; these norms bind clinical actions even if the medium is digital. Law No. 29 of 2004 concerning Medical Practice, although centered on medical practice, remains relevant as a systemic reference on health service relations based on professional standards, duty of care, and orderly accountability. Law No. 11 of 2008 concerning Electronic Information and Transactions, as amended by Law No. 19 of 2016, governs the

operation of electronic systems, the management of electronic information, and the legal consequences when systems or information processing cause harm. With these three pillars of regulation, the relationship between patients, physiotherapists, and platforms cannot be narrowed down to a mere commercial relationship, as there are elements of healthcare and sensitive data processing that require stricter accountability governance. This tripartite framework serves as an analytical foundation for distinguishing and linking the legal obligations of each party proportionally.

The assessment of physiotherapists' responsibilities is based on professional standards that bind healthcare practitioners. The parameters of responsibility for physiotherapists stem from professional norms as health workers who perform services in accordance with professional standards, service standards, and competencies. Law No. 36 of 2014 concerning Health Workers places the practice of health workers within a framework of authority accompanied by an obligation to comply with standards, maintain quality, and respect patient rights (Jannati, 2022). These accountability parameters are also relevant in medical malpractice and misdiagnosis cases that may result in legal consequences for doctors (Setiyadi et al., 2023). In tele-rehabilitation, the parameters of error that can be assessed include negligence in assessing the suitability of remote services, carelessness in designing safe exercises for the patient's condition, failure to guide safety procedures, or misleading communication that causes patients to perform risky movements.

Ministry of Health Regulation No. 65 of 2015 concerning Physiotherapy Service Standards specifies the appropriate scope of physiotherapy services, so that it can be used to assess whether physiotherapists' actions are within professional standards or deviate from them. The parameters of responsibility are then constructed from normative questions: whether the actions are in accordance with standards, whether the actual risks have been explained, whether monitoring and follow-up are carried out reasonably, and whether referrals to face-to-face services are made when clinical indicators point to the need for direct examination. If standards are violated and a causal relationship with patient harm is proven, responsibility may extend to civil, professional disciplinary, or even criminal liability, depending on the nature of the act. At this stage, the measure of "professional appropriateness" becomes the focus of assessment, not merely clinical outcomes that fall short of expectations. Compliance with medical record documentation is key to ensuring that errors or negligence can be legally accounted for (Mubarak et al., 2023). Thus, physiotherapists' accountability is measured by compliance with standards, not solely by clinical success.

The position of the patient also has legal relevance that cannot be ignored in remote service relationships. The determination of patient responsibility in tele-rehabilitation cannot be understood as a transfer of risk to the patient, but rather as an affirmation of the patient's position as a legal subject with rights and obligations in the service relationship. Law No. 36 of 2009 concerning Health stipulates the patient's right to information, the right to choose, and the right to obtain safe services; these rights need to be translated into actions by patients who provide accurate information, report symptoms honestly, and follow the safety instructions that have been explained. Law No. 8 of 1999 concerning Consumer Protection provides the basis that patients, as service users, are entitled to comfort, safety, and accurate and honest information, but at the same time, consumers are obliged to follow the instructions for using goods or services for safety. Clear patient rights also reduce the risk of malpractice or legal disputes against health workers (Herisasono et al., 2023). Patient liability parameters are therefore more appropriately understood as contributing to the occurrence of harm, for example when patients conceal relevant medical history, modify exercises without reporting, or ignore warnings that have been communicated. In disputes, this contribution affects the assessment of causality and the amount of compensation, not the removal of professional obligations.

In tele-rehabilitation, the nature of services involving independent exercise makes patient behavior a more visible factor, so that clear and documented standards for providing instructions serve as a safeguard to ensure that the division of responsibilities does not turn into unilateral accusations (Pandhika & Fakih, 2021). In addition, patient rights protection mechanisms must include the obligation for healthcare professionals to guarantee patient safety and rights in every digital interaction (Safitri et al., 2023). Thus, fair parameters must link patients' rights to information with their obligation to maintain their own safety by complying with the instructions they have understood. This approach maintains a balance between patient protection and reasonable accountability.

In addition to healthcare professionals and

patients, digital platforms play a crucial role in the structure of tele-rehabilitation accountability. Platform providers have accountability parameters rooted in their obligations as providers of electronic systems that process data and facilitate health services. Law No. 11 of 2008 concerning Electronic Information and Transactions and its amendments require that electronic systems be operated reliably, securely, and responsibly, and recognize that electronic information or documents have legal consequences. Government Regulation No. 71 of 2019 concerning the Implementation of Electronic Systems and Transactions clarifies the obligations of system governance, including aspects of security, reliability, and incident management.

In tele-rehabilitation, platforms can be held accountable when system failures, weak security designs, or operational negligence result in services not being delivered, account manipulation, or health data leaks. Meanwhile, service advertising and platform feature claims must also comply with consumer protection regulations to avoid causing harm to patients (Sahidu et al., 2023). Platform error parameters differ from those of physiotherapists, as the assessment center is on technological due care: whether the platform implements reasonable security standards, whether access is restricted according to the principle of necessity, whether there is adequate log recording, and whether there are rapid and transparent incident response procedures.

In contractual relationships, platforms may also bear the obligation to provide honest information about features, system limitations, and data policies, in accordance with the Consumer Protection Law. If a platform presents itself as a healthcare provider or packages its services as integrated healthcare services, the burden of responsibility may increase because the public naturally relies on such claims. Therefore, determining the parameters of platform liability must consider whether the platform is merely a technology intermediary or also controls the service process, as process control is often directly proportional to legal liability. In addition, the governance of electronic medical records must also be maintained to prevent falsification or manipulation of health data (Hartika et al., 2023; Mubarak et al., 2023). This distinction of roles is important so that the platform's responsibility is not simplified or disproportionately waived.

The aspect of health data protection occupies a central position in the discussion of tele-rehabilitation accountability. The protection of personal health data occupies a special position because health data is specific and highly sensitive personal data. Law No. 27 of 2022 concerning Personal Data Protection establishes the basic principles of data processing, the legal basis for processing, the obligations of data controllers and processors, the rights of data subjects, and sanctions for violations. In tele-rehabilitation, patients usually submit identity data, complaints, medical history, motion videos, and progress notes, all of which can reveal their health condition. The PDP Law requires a valid basis for processing, and for specific data, explicit consent is often the main basis, accompanied by purpose limitation, data minimization, and adequate security. Data protection parameters in tele-rehabilitation must therefore include clarity of processing purposes (e.g., for service provision, billing, quality improvement, or legal obligations), access restrictions (who can view videos or records), and retention arrangements (how long data is stored and when it is destroyed). The PDP Law also affirms the patient's right to obtain information about data processing, request corrections, withdraw consent within permissible limits, and object to certain actions. In service design, these rights must be enforceable through tangible mechanisms, not merely privacy policy statements. Thus, the parameters of data protection legality are established through compliance with the principles of the PDP Law, which are binding on platforms and parties that control the processing of health data. This compliance is the main benchmark for assessing the legitimacy of patient data management.

The administrative regulatory layer further emphasizes the technical obligations of electronic system operators. In addition to the PDP Law, Minister of Communication and Information Technology Regulation No. 20 of 2016 concerning Personal Data Protection in Electronic Systems provides administrative guidelines on the personal data management cycle in electronic systems, including acquisition, processing, storage, display, announcement, delivery, dissemination, and destruction. In tele-rehabilitation, these guidelines are relevant for assessing whether the platform has written procedures and operational mechanisms regarding proportional data collection, use of data for its intended purpose, and termination of access when the service relationship ends. Permenkominfo 20/2016 also regulates the obligation to notify in the event of a data protection failure, which is an important parameter in platform accountability. This notification obligation strengthens the position of patients to be aware of the risks they face and take mitigation measures, such as changing passwords

or monitoring identity theft.

Another important parameter is the data processing consent mechanism, because in tele-rehabilitation there is often confusion between consent for service provision and consent for data processing. Separating these two types of consent is more in line with the principle of transparency, as patients can consent to clinical services while restricting data processing for marketing or analytical purposes (Hendra et al., 2021). This Minister of Communication and Information Technology Regulation, together with the ITE Law and PP 71/2019, forms a layer of technical and administrative obligations that emphasize that failure to protect health data cannot be considered a normal incident, but rather a potential violation of the law that gives rise to liability for damages and administrative sanctions in accordance with the regulator's authority. This series of obligations clarifies that data security is an integral part of the accountability of tele-rehabilitation services.

The accountability of tele-rehabilitation can be analyzed through the separation of the objects of obligation between the actors involved. Layered accountability in tele-rehabilitation can be explained through the division of objects of responsibility. Physiotherapists bear responsibility for professional actions, the accuracy of functional assessments, the selection of exercises, and the confidentiality of information they access as health workers. The platform bears responsibility for system security, access design, data processing, and the reliability of features that serve as a means of delivering services. Minister of Health Regulation No. 24 of 2022 concerning Medical Records reinforces this division because it binds the obligation to maintain the confidentiality of medical records and regulates the management of electronic medical records as part of health services.

In tele-rehabilitation, electronic medical records are often stored on platform infrastructure, raising the question of who is the data controller and who is the data processor. The PDP Law defines these terms and divides responsibilities, so that the parameters must take into account the contractual and factual positions: the party that determines the purpose and means of processing is generally treated as the data controller, while the party that processes on the instructions of the controller is treated as the processor. If the platform determines retention, analytics, and data sharing policies with partners, the platform tends to approach the function of a controller. If the platform only stores and transmits data on the instructions of healthcare facilities, the platform is closer to being a processor. This division is important because it determines the main obligations, including the obligation to ensure the basis for processing, carry out risk assessments, and prepare incident responses. Thus, data protection parameters in tele-rehabilitation must be formulated after a clear mapping of the roles of controller and processor, so that responsibilities are not shifted when a violation occurs. This mapping of roles is the starting point for determining proportional and testable legal obligations.

Civil aspects present the most common avenue of liability when patient harm occurs. In the civil sphere, tele-rehabilitation opens up two main avenues for claims, namely breach of contract and unlawful acts, which can be directed at physiotherapists, platform providers, or both, depending on the event that caused the loss (Kuswardani & Abidin, 2023). The Civil Code provides the legal basis for agreements in Article 1320, which is useful for assessing whether the agreement for digital services creates a binding contractual relationship. Based on the agreement for these digital services, the digital service provider is released from any liability or losses arising from telemedicine to doctors. Thus, the losses experienced by patients are solely the responsibility of the doctor, as the underlying relationship is a contract (Prasetyo & Prananingrum, 2022). If a contractual relationship is proven, failure to fulfil the promised obligations can be assessed as a breach of contract, for example when the platform promises end-to-end encryption but it is not implemented, or when the purchased service is not delivered in accordance with the terms of service.

Beyond that, Article 1365 of the Civil Code on unlawful acts provides grounds for claiming compensation when there is an unlawful act that causes loss and has a causal relationship, for example, a health data leak due to security negligence, or injury due to instructions that clearly deviate from the standard of care. Civil parameters in tele-rehabilitation require clear evidence of actions or negligence, standards of duty, and actual losses, including immaterial losses that may arise from privacy violations. In a tripartite relationship, claims can be cumulative, for example, claims against physiotherapists for clinical negligence and against platforms for system failures that hinder monitoring, as long as the causal contribution of each party can be demonstrated. Therefore, contract structures, terms of service, and privacy policies are important documents for mapping civil remedies. The civil sphere thus functions as a corrective

instrument for failure to fulfil service obligations.

The criminal dimension arises when violations exceed the limits of professional or administrative propriety. In the criminal sphere, the parameters of liability in tele-rehabilitation arise when violations exceed ordinary negligence and fulfil the definition of an offence in legislation. The ITE Law contains criminal provisions related to unauthorized access, interception, and acts that attack the integrity of electronic systems or information. Health data leaks can fall under the criminal realm if there is evidence of unauthorized access, wiretapping, or disclosure carried out with specific intent, accompanied by unlawful elements.

The PDP Law also introduces criminal penalties for certain acts, including the unlawful disclosure of personal data and the unauthorized use of personal data, which can form the basis for liability against individuals in organizations and corporations in accordance with applicable liability rules. For physiotherapists, criminal liability may arise if there are actions that violate basic service obligations and result in serious injury, or if there is disclosure of patient confidentiality committed with intent or gross negligence (Sumitra et al., 2023). The determination of criminal parameters must be careful so as not to criminalize ordinary professional errors, while still providing protection for patients from acts that clearly violate the law. Therefore, normative analysis requires a clear distinction between reasonable clinical risks, professional negligence assessed through professional standards and disciplinary mechanisms, and acts that constitute criminal offences. In tele-rehabilitation, this separation often depends on digital evidence, making log management, authentication, and audit trails decisive factors in assessing intent, negligence, and responsible parties. This approach ensures that criminal law functions as an ultimo remedy, not an instrument of excessive repression.

The administrative domain acts as a preventive compliance control mechanism. In the administrative domain, tele-rehabilitation requires certainty regarding licensing and supervision of service provision, especially when the platform is connected to health facilities and health workers. Telemedicine regulations within the Ministry of Health set out guidelines for the provision of remote health services, including requirements for providers, service governance, and responsible parties. The parameters of administrative accountability for platforms and health facilities are related to compliance with these requirements, such as meeting security standards, complaint mechanisms, and service traceability.

If the platform performs a substantive function in health services, administrative obligations may be reinforced by health sector licensing provisions and general public sector electronic system provisions. PP 71/2019 provides the basis for administrative sanctions for electronic system operators who do not fulfil their obligations, while the Consumer Protection Law opens up space for supervision and enforcement against business actors who provide misleading information or do not meet service security standards. These administrative parameters are important because they provide space for quick corrections through guidance, warnings, temporary suspensions, or revocation of licenses, without waiting for civil or criminal disputes. In tele-rehabilitation, administrative instruments become tools for ensuring quality and safety, as they can compel platforms to close security loopholes, improve data approval procedures, or adjust service flows to comply with health regulations. Thus, administrative accountability sets the minimum compliance threshold that must be met, and failure to meet this threshold can be an indicator of negligence relevant to the civil sphere. This administrative function affirms the state's role as the guardian of minimum service standards.

Cross-sectoral supervision forms the external framework for enforcing accountability. Supervision is an element that shapes the parameters of accountability because it determines compliance standards and correction mechanisms. The Ministry of Health has the authority to supervise the provision of health services and the implementation of telemedicine regulations, as well as to foster health workers and health service facilities through health sector regulatory instruments. The Ministry of Communication and Information Technology has the authority to supervise electronic system operators and the implementation of personal data protection provisions in electronic systems, as well as to take action against related administrative violations.

The Financial Services Authority may become involved when platforms combine health services with financial products, such as payments, financing, or insurance, as financial sector supervision applies to activities within its remit. Good supervision parameters will require platforms and service providers to have data governance policies, risk assessments, periodic security audits, and testable incident response

procedures. Oversight also encourages the existence of complaint and dispute resolution mechanisms that are easily accessible to patients, including clear channels for reporting privacy violations or service losses. In tripartite relationships, oversight reduces the scope for mutual denial of responsibility, as regulators tend to request role assignment documents, cooperation agreements, and operational responsibility sharing. If these documents are absent or vague, the risk of liability for platforms and service providers increases because they are considered to have failed to exercise reasonable governance. Thus, oversight establishes parameters of accountability through inspectable compliance standards, rather than through unilateral claims in terms of service. The existence of oversight ensures that accountability is not merely declarative.

The principle of accountability becomes a normative binding force for all layers of responsibility. The principle of accountability in tele-rehabilitation needs to be translated into measurable obligations for each actor, so that legal certainty does not stop at moral statements. For patients, accountability means providing accurate information, communicating changes in symptoms, and complying with understood safety instructions, which is in line with consumer obligations under the Consumer Protection Law. For physiotherapists, accountability means maintaining professional and service standards, limiting remote services to appropriate conditions, and maintaining patient confidentiality as mandated by health norms and medical records. For platforms, accountability means designing secure and reliable systems, limiting access to authorized parties, controlling data processing in accordance with its purpose, and providing notification in the event of an incident, as required by the ITE Law, Government Regulation 71/2019, Ministry of Communication and Information Technology Regulation 20/2016, and the Personal Data Protection Law.

Accountability also requires internal verification mechanisms, such as activity logs, policy change records, and documentation of security standard implementation. Without verification mechanisms, accountability claims can easily collapse in disputes because there is no data showing who did what, when, and with what authority (Abidin, 2018). Therefore, accountability parameters in tele-rehabilitation should priorities the traceability of actions, the measurability of procedures, and the disclosure of information relevant to patients. In this way, accountability becomes a legal principle that works in practice, keeping tele-rehabilitation services in line with patient protection and health data protection obligations. Operational accountability ensures that public trust can be maintained on an ongoing basis.

The overall accountability parameters indicate the need for cross-legal regime integration. Overall, the legal accountability and personal health data protection parameters in tele-rehabilitation are established through the integration of health norms, electronic system norms, data protection norms, consumer protection norms, and civil contract norms. The Health Law emphasizes the obligation of safety and respect for patient rights as the basis for service relationships; the Health Workers Law and Minister of Health Regulation on Physiotherapy Service Standards establish measures of professional propriety for assessing physiotherapist errors; the ITE Law and Government Regulation 71/2019 establish due care in the operation of electronic systems for assessing platform errors. The PDP Law and Minister of Communication and Information Technology Regulation 20/2016 establish the principles of data processing, explicit consent, security, incident notification, and data subject rights as measures of health data protection; the Consumer Protection Law places patients as service users who are entitled to accurate information and service security; the Civil Code provides the basis for civil claims through the requirements of a valid agreement and unlawful acts. The tripartite relationship requires a clear mapping of roles, as the division of responsibilities often depends on who controls the purpose of data processing and who controls the service process. With clear parameters, tele-rehabilitation can be conducted with greater legal certainty, as each actor knows their obligations, limits of authority, security standards, and recourse when patient rights are violated or losses occur. This integration positions tele-rehabilitation as a legitimate, responsible, and legally accountable digital health service.

CONCLUSION

Tele-rehabilitation physiotherapy requires strict legal measures to ensure that remote services remain within the framework of accountable healthcare services. These measures are based on the professional authority of physiotherapists, legally valid and proven treatment agreements, and orderly electronic medical record keeping. In the tripartite relationship between patients, physiotherapists, and platform providers, legal accountability is formed

through the division of different obligations: clinical professional obligations lie with physiotherapists, while obligations regarding system reliability, security, and data processing governance lie with the platform, with patients holding the right to information, choice, and protection of personal health data. Legal certainty is achieved when health standards, electronic system standards, personal data protection standards, and consumer protection standards are harmoniously applied through standard operating procedures (SOPs), structured consent mechanisms, and digital records that maintain the integrity of evidence.

The practical implications for service providers are the need for a governance design that clearly separates the clinical action domain and the data processing domain, including the designation of data controllers and data processors, role-based access control, and incident response mechanisms. For physiotherapists, the implications include strengthening patient selection procedures for remote services, establishing face-to-face referral indicators, and documentation that captures clinical rationality and safety instructions. For patients, the implications include an increase in bargaining power through the right to information, the right to control health data, and the right to claim compensation in the event of a breach. At the governance level, the implications point to the need for compliance audits that test the alignment between digital service claims, operational practices, and statutory obligations.

Tele-rehabilitation providers need to develop compliance packages that include verification of physiotherapist credentials, separate treatment consent and data processing consent templates, and data retention policies that are consistent with electronic medical records. Healthcare facilities are encouraged to place tele-rehabilitation within a clear service accountability structure, including complaint channels and handling of adverse events. Physiotherapists must ensure that every remote service begins with an adequate assessment, followed by a tailored exercise plan and documented evaluation. Regulators can strengthen the clarity of tele-rehabilitation classification, minimum health data security standards, and rapid administrative enforcement mechanisms in the event of violations.

REFERENCES

Abidin, Z. (2018). Tanggung Jawab Hukum Fisioterapis Praktik Mandiri Terhadap Pasien. *Jurnal Fisioterapi dan Rehabilitasi*, 2(2), 125-129.

Adhalia, C. K. (2023). Limitations of Clinical Authority and Medical Practice Through Application-Based Telemedicine. *Indonesia Private Law Review*, 4(1), 49-50.

Afrilies, M. H., & Naili, Y. T. (2023). Legal Aspects of Telemedicine Health Services in the Perspective of Health Law in Indonesia in the Digital Era. *Journal of Advanced Health Informatics Research*, 1(1), 41-46.

Alenoghena, C. O., Ohize, H. O., Adejo, A. O., Onumanyi, A. J., Ohihoin, E. E., Balarabe, A. I., ... & Alenoghena, B. (2023). Telemedicine: A Survey of Telecommunication Technologies, Developments, and Challenges. *Journal of Sensor and Actuator Networks*, 12(2), 20.

Beauchamp, T. L., & Childress, J. F. (2009). *Principles of Biomedical Ethics (6th ed.)*. Oxford University Press, Oxford.

Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77–101.

Budiyanti, R. T., & Herlambang, P. M. (2021). Perlindungan Hukum Pasien dalam Layanan Konsultasi Kesehatan Online. *Jurnal Hukum Kesehatan Indonesia*, 1(1), 1-10.

Gandole, S., & Yadav, V. (2022). Review of Telerehabilitation of Physical Therapy. *Journal of Pharmaceutical Negative Results*, 13.

Guy, M., Blary, A., Ladner, J., & Gilliaux, M. (2021). Ethical Issues Linked to the Development of Telerehabilitation: A Qualitative Study. *International Journal of Telerehabilitation*, 13(1), e6367.

Hendra, H., Ravel, R., Firdhaus, N., Kurniawan, M. A., & Platina, G. (2021). E-Health Personal Data Protection in Indonesia. *Jurnal Hukum Kesehatan Indonesia*, 1(2), 121-131.

Indonesia. (1999). *Undang-Undang Republik Indonesia Nomor 8 Tahun 1999 tentang Perlindungan Konsumen*. Lembaran Negara. Jakarta.

Indonesia. (2004). *Undang-Undang Republik Indonesia Nomor 29 Tahun 2004 tentang Praktik Kedokteran*. Lembaran Negara. Jakarta.

Indonesia. (2008). *Undang-Undang Republik Indonesia Nomor 11 Tahun 2008 tentang Informasi dan Transaksi Elektronik*. Lembaran Negara. Jakarta.

Indonesia. (2009). *Undang-Undang Republik Indonesia Nomor 36 Tahun 2009 tentang Kesehatan*. Lembaran Negara. Jakarta.

Indonesia. (2014). *Undang-Undang Republik Indonesia Nomor 36 Tahun 2014 tentang Tenaga Kesehatan*. Lembaran Negara. Jakarta.

Indonesia. (2016). *Undang-Undang Republik Indonesia Nomor 19 Tahun 2016 tentang Perubahan atas Undang-Undang Nomor 11 Tahun 2008 tentang Informasi dan Transaksi Elektronik*. Lembaran

Negara. Jakarta.
Indonesia. (2019). *Peraturan Pemerintah Republik Indonesia Nomor 71 Tahun 2019 tentang Penyelenggaraan Sistem dan Transaksi Elektronik*. Lembaran Negara. Jakarta.
Indonesia. (2022). *Undang-Undang Republik Indonesia Nomor 27 Tahun 2022 tentang Perlindungan Data Pribadi*. Lembaran Negara. Jakarta.
Jannati, A. S. R. (2022). Perlindungan Hukum bagi Pasien dalam Pelayanan Telemedicine di Indonesia. *Jurnal Juristic*, 3(2), 210-224.
Kementerian Kesehatan Republik Indonesia. (2015). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 65 Tahun 2015 tentang Standar Pelayanan Fisioterapi*. Jakarta.
Kementerian Kesehatan Republik Indonesia. (2022). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 24 Tahun 2022 tentang Rekam Medis*. Jakarta.
Kementerian Komunikasi dan Informatika Republik Indonesia. (2016). *Peraturan Menteri Komunikasi dan Informatika Republik Indonesia Nomor 20 Tahun 2016 tentang Perlindungan Data Pribadi dalam Sistem Elektronik*. Jakarta.
Kuswardani, K., & Abidin, Z. (2023). Perlindungan hukum Perlindungan Hukum Terhadap Pasien Sebagai Pengguna Fitur Layanan Kesehatan di Aplikasi Fisdok. *Al-Manhaj: Jurnal Hukum Dan Pranata Sosial Islam*, 5(1), 101-112.
Lange, E., & Danielsson, L. (2023). Reaching for Connection: A Qualitative Study of Communication and Interaction in Video-Based Physiotherapy. *Physiotherapy Theory and Practice*, 40(12), 2865-2876.
Nittari, G., Khuman, R., Baldoni, S., Pallotta, G., Battineni, G., Sirignano, A., ... & Ricci, G. (2020). Telemedicine Practice: Review of the Current Ethical and Legal Challenges. *Telemedicine and e-Health*, 26(12), 1427-1437.
Pandhika, R., & Fakih, M. (2021). Doctor's Responsibility in Providing Telemedicine Services among Health Care Facilities: Legal and Professional Dimensions. *Administrative and Environmental Law Review*, 2(1), 21-30.
Prasetyo, A., & Prananingrum, D. H. (2022). Disrupsi Layanan Kesehatan Berbasis Telemedicine: Hubungan Hukum Dan Tanggung Jawab Hukum Pasien Dan Dokter: Indonesia. *Refleksi Hukum: Jurnal Ilmu Hukum*, 6(2), 225-246.
Sanusi, S., Rediyano, R., Wulan, E. R., & Qomarddin. (2023). Doctor's Legal Responsibility in Telemedicine Services. *International Journal of Social Service and Research*, 3(12), 3334-3345.
Solove, D. J. (2004). *The Digital Person: Technology and Privacy in the Information Age*. New York University Press, New York.
Sumitra, S., Yuyut Prayuti, Y. P., & Lany, A. (2023). Kewajiban dan Tanggung Jawab Hukum Perdata dalam Perlindungan Privasi Data Pasien dalam Layanan Kesehatan Digital. *Jurnal Hukum Media Justitia Nusantara*, 14(1), 43-52.
Suwadi, P., Ayuningtyas, P. W., Septiningrum, S. Y., & Manthovani, R. (2022). Legal Comparison of the Use of Telemedicine Between Indonesia and the United States. *International Journal of Human Rights in Healthcare*. 17(3), 315-329.
Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14(3), 207–222.
Watulingas, A. M., Kristanto, E. G., & Waha, C. J. (2023). Implementasi Perlindungan Hukum Profesi Dokter Terhadap Layanan Telemedicine di RSUP Prof. Dr. RD Kandou Manado. *Medical Scope Journal*, 5(2), 247-252.
Webster, J., & Watson, R. T. (2002). Analyzing The Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly*, 26(2), 13–23.
World Health Organization. (2010). *Telemedicine: Opportunities and Developments in Member States: Report on the Second Global Survey on eHealth (Global Observatory for eHealth Series, Vol. 2)*. WHO Press, Geneva.
Feriadi, E. H., Khayru, R. K., Issalillah, F., Vitrianingsih, Y., & Mardikaningsih, R. (2023). Patient Autonomy, Paternalistic Healthcare Providers, and Criminal Liability in Therapeutic Contracts. *Journal of Social Science Studies,* 3(1), 307-318.
Hartika, Y., Saputra, R., Pakpahan, N. H., Darmawan, D., & Putra, A. R. (2023). A Study on the Falsification of Health Certificates: Perspective of Criminal Law and Professional Ethics. *Journal of Social Science Studies*, 3(2), 175-180.
Hartika, Y., Saputra, R., Pakpahan, N. H., Darmawan, D., & Putra, A. R. (2023). A Study on the Falsification of Health Certificates: Perspective of Criminal Law and Professional Ethics. *Journal of Social Science Studies*, 3(2), 175-180.
Herisasono, A., Darmawan, D., Gautama, E. C., & Issalillah, F. (2023). Protection of Patient Rights in the Perspective of Law and Medical Ethics in Indonesia. *Journal of Social Science Studies,* 3(2),

195-202.

Khayru, R. K., & Issalillah, F. (2022). Service quality and patient satisfaction of public health care. *International Journal of Service Science, Management, Engineering, and Technology*, 1(1), 20-23.

Kholis, K. N., Chamim, N., Susanto, J. A., Darmawan, D., & Mubarak, M. (2023). Analyzing Electronic Medical Records: A Comprehensive Exploration of Legal Dimensions within the Framework of Health Law. *International Journal of Service Science, Management, Engineering, and Technology*, 4(1), 36-42.

Lethy, Y. N., Issalillah, F., Vitrianingsih, Y., Darmawan, D., & Khayru, R. K. (2023). Legal Protection for Patients Against Negligence of Medical Personnel. *International Journal of Service Science, Management, Engineering, and Technology,* 4(2), 39-43.

Mubarak, M., Darmawan, D., & Saputra, R. (2023). Legal and Ethical Arrangements for Medical Record Filling by Doctors: A Normative Study. *Bulletin of Science, Technology and Society*, 2(1), 33-38.

Noor, A., Herisasono, A., Hardyansah, R., Darmawan, D., & Saktiawan, P. (2023). Juridical Review of the Rights of Indigent Patients in Health Services in Indonesia. *Journal of Social Science Studies*, 3(2), 253-258.

Putra, A. R., & Wibowo, A. S. (2023). Royalty Fee Arrangement in Franchise Business and its Legal Implication in Indonesia. *Journal of Social Science Studies,* 3(1), 171-176.

Riyanto, A., Rezza, M., Noor, A., Darmawan, D., & Yulius, A. (2023). Legal Protection for the Implementation of Immunization in Post-Immunization Adverse Incidents. *Bulletin of Science, Technology and Society,* 2(3), 21-27.

Safitri, N., Gautama, E. C., Issalillah, F., Mardikaningsih, R., & Vitrianingsih, Y. (2023). Law Enforcement Against Midwife Malpractice in Midwifery Services in Indonesia. *Journal of Social Science Studies*, 3(2), 1-10.

Sahidu, S., Putra, A. R., & Darmawan, D. (2023). Medical Advertising Regulations and Patient Protection as Consumers of Healthcare Services. *Journal of Social Science Studies*, 3(1), 331-342.

Sasmita, B., Darmawan, D., & Khayru, R. K. (2023). Telemedicine Regulation in Indonesia: Enhancing Patient Safety and Protection. *International Journal of Service Science, Management, Engineering, and Technology,* 4(3), 29-35.

Setiawan, R. A., Khayru, R. K., Mardikaningsih, R., Issalillah, F., & Halizah, S. N. (2023). Implementation of Indonesian Positive Law in Combating Fraud and Forgery in Health Insurance and Protection against Industrial Losses. *Journal of Social Science Studies*, 3(1), 271-280.

Setiawan, S., Hardyansah, R., Khayru, R. K., & Putra, A. R. (2023). Consumer Protection in the Health Sector: The Legal Responsibilities of Pharmacists. *Journal of Social Science Studies*, 3(2), 131-138.

Setiyadi, G. B., Negara, D. S., Khayru, R. K., Darmawan, D., & Saputra, R. (2023). Misdiagnosis and Legal Liability of Doctors: A Normative Juridical Study in the Indonesian Health System. *Journal of Social Science Studies*, 3(2), 215-220.

Subhi, I., Darmawan, D., Khayru, R. K., Suwito, S., & Mujito, M. (2023). Juridical Aspects of Violation of Authotiry by Dental Handyman. *Bulletin of Science, Technology and Society*, 2(1), 6-11.

Subiakso, A., Juliarto, T. S., Darmawan, D., Sisminarnohadi, S., & Romli, R. I. A. (2023). Legal rights in access to health services for persons with disabilities. *Bulletin of Science, Technology and Society,* 2(3), 15-20.

Vitrianingsih, Y., Issalillah, F., Mardikaningsih, R., & Halizah, S. N. (2023). Juridical Study of Medical Malpractice by Midwives Based on Law No. IX. 17 of 2023 Concerning Health. *Journal of Social Science Studies,* 3(2), 169-174.

Yatno, Y., Darmawan, D., & Khayru, R. K. (2023). Hospitals' Legal Responsibility for Service Disruptions due to Information System Failures. *Journal of Social Science Studies*, 3(1), 319-330.

Yulius, A., Mubarak, M., Hardyansah, R., Darmawan, D., & Yasif, M. (2023). Legal Protection for Nurses in Medical Practice in Hospitals. *International Journal of Service Science, Management, Engineering, and Technology,* 4(3), 18-22.

***N. S. A. Widodo, A. Herisasono, & R. K. Khayru. (2024). Legal Standards for Physical Therapy Tele-Rehabilitation: Authority, Consent, Medical Records, Personal Data, *Journal of Social Science Studies*, 4(1), 447 – 464.**