

# Concordance in the healthcare context: A concept analysis

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## Abstract

**Background:** The concept of concordance and its usage are indicative of patient-centered healthcare, which encourages an equitable collaboration between patients and clinicians. However, there is a lack of clarity in understanding concordance, and an analysis of this concept is warranted.

**Objective:** This paper seeks to explore the essence of the concordance concept in the healthcare context.

**Methods:** Walker and Avant's eight-step method of concept analysis was applied. A literature search was conducted using concordance AND concord as keywords on CINAHL, MEDLINE, PubMed, ProQuest, Cochrane database, and ScienceDirect databases, published between 2006 and 2022.

**Results:** The attributes of concordance include communication process, therapeutic partnership, and agreement on treatment regimens. Antecedents of concordance comprise provider-patient relationship, patients' beliefs, healthcare providers' characteristics, and complexity of treatment plans. Consequences are improved adherence and compliance, improved clinical outcomes, and better quality of life.

**Conclusion:** This paper offers clarification of concordance by presenting its antecedents, attributes, and consequences. The findings serve as a basis for developing assessments and nursing interventions to promote patient concordance. Nurses can use the findings to encourage concordance by establishing a trusty relationship during health encounters that respects patients' beliefs and effectively communicating to improve patients' understanding in dealing with complex treatment plans.

## Keywords

concordance; concept analysis; healthcare; patient-centered care; communication; nurses

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## Background

Treatments provided according to clinical and diagnostic results are beneficial to the patients. Nevertheless, taking prescribed medicines or performing recommended health behaviors depends not solely on the prescribed regimens' expected benefits or the prescribers' power (Atal et al., 2019). Instead, it is the result of intricate biopsychosocial processes that reflect the patients' choice to take the medication. Concordance is a term that has emerged in contemporary medical literature involving healthcare professionals who engage with patients in the course of their therapeutic work. Concordance fosters a good rapport between patients and clinicians, with benefits in enhancing not only health outcomes but also quality of life (Trimarco et al., 2023).

However, misuse of the phrases "compliance," "adherence," and "concordance" occurs among medical professionals and in literature (Rae, 2021). Compliance is the act of practicing self-care by conforming to health suggestions that show willing cooperation with medical experts (Thummak et al., 2023). Adherence is the extent to which an individual's actions align with the agreed-upon suggestions (World Health

Organization, 2003). Concordance, on the other hand, emphasizes the understanding, choices, and partnership of the patients with their providers (Snowden et al., 2014). It has evolved to reflect the advancement of healthcare and the move toward patient-centered treatment (Atal et al., 2019). Although the concept analysis by Snowden et al. (2014) offered conceptualizations of concordance in nursing, pharmacy, medicine, and psychiatry disciplines, continuing refinement of a concept is a hallmark of a scientific discipline (Rodgers et al., 2018). Revisiting the concordance concept and providing a fuller understanding based on multi-disciplinary studies should be beneficial in improving the patient's quality of life (Settineri et al., 2019).

## Concept Analysis of Concordance in the Healthcare Context

### Selecting a Concept

Concordance was chosen because of its potential to alter the way patients and healthcare professionals perceive each other. Concordance promotes good relationships between patients and providers by placing a high priority on patient

autonomy and health in its contemporary approach to healthcare. A concordance-focused culture is the best medication management method (Snowden et al., 2014). Concordance acknowledges that two sets of health beliefs, those of the patients and the professionals, are essential to their interactions. These views may disagree, but they are both equally important. It is the patient's responsibility to communicate their health convictions to the experts during encounters, and it is the experts' responsibility to facilitate this and respect the patient's viewpoint. Patients should be able to make decisions regarding their diagnoses, course of treatments, associated risks and benefits, and level of participation in a therapeutic alliance (De Mauri et al., 2022).

### Determining the Aim of the Analysis

This step seeks to specify the study's purpose, highlighting the applicability of the analysis conclusions (Walker & Avant, 2019) to make concordance more understandable, which will

result in more effective interventions to promote patient concordance. The specific aims were to gain a deeper understanding of concordance in the healthcare context and to evaluate its applicability.

### Identifying All Concept Uses

The term "concordance" originates from the Latin term "concordant," meaning to agree (Merriam-Webster Online Dictionary, 2024). In modern English, Oxford Learner Dictionaries (2024) defines concordance as the state of being similar or consistent with something. A literature review was carried out by two authors (AT and WU) to identify the uses of concordance in papers published from 2006 to 2022, utilizing concordance AND concord as keywords for searching on CINAHL, MEDLINE, PubMed, ProQuest, Cochrane, and ScienceDirect databases. Lastly, the remaining author (NV) provided feedback on the search results. In total, 45 papers giving clear definitions of concordance are shown in Table 1.

Table 1 Definitions of concordance

Author(s) (year)	Discipline	Definition
Bylund et al. (2010)	Psychiatry and Behavioral Sciences	A reached agreement that honors the patient's values and preferences in light of the patient's real-world experiences with illnesses
Settineri et al. (2019)	Clinical psychology	An in-depth understanding of the partnership and the feasibility of looking into important lifestyle-related issues for the patient
Trimarco et al. (2023)	Pharmacy	Treatment acceptance and agreement in trying to reach a treatment goal
Aronson (2007)	Pharmacy	An agreement on the regimen made between the providers and the patients
Atal et al. (2019)	Pharmacy	A channel for open dialogue and communication between medical professionals and patients that emphasizes patient-centered care and moves toward collaborative decision-making
Bell et al. (2007)	Pharmacy	The establishment of therapeutic alliance between clinicians and patients
de Almeida Neto and Aslani (2008)	Pharmacy	A mutually agreed upon plan of treatment that honors the patient's values and preferences for the administration of medications, including when, how, and if they should be taken
Gangwar et al. (2012)	Pharmacy	The degree of interaction between healthcare providers and patients about the health issue and the necessity of treatments
Ng et al. (2018)	Pharmacy	A consensus reached through negotiation between patients and healthcare practitioners based on the patient's values and preferences while deciding whether, how, and when to follow treatment plans
Butz et al. (2009)	Medicine	An agreement between the provider's validated lists of prescribed asthma drugs and the caregiver's home drug records
Chatterjee (2006)	Medicine	The patient is an informed decision-maker, and the physicians and the patients are on an equal footing. A partnership should exist between the doctor and patient, during which time the health issue should be explained, and the patient's knowledge and beliefs regarding the illness should be investigated
Clucas et al. (2011)	Medicine	The dynamic communication process between a doctor and patient occurs throughout a clinical interaction, promoting shared decision-making
Crespo-Lessmann et al. (2017)	Medicine	A process wherein medical professionals and patients collaborate to manage the illness and reach consensus on treatment choices while acknowledging that they might have distinct points of view and need to understand each other better
Cushing and Metcalfe (2007)	Medicine	A consulting process where prescriptions have their foundation in partnership
De las Cuevas (2011)	Medicine	The degree to which patients receive adequate support in making decisions about their medications
De las Cuevas et al. (2012)	Medicine	A mutually agreeable arrangement between patients and healthcare providers that honors the patient's values and preferences about treatment preferences, drug administration schedules, and timing while acknowledging that the patient's choice is paramount
De Mauri et al. (2022)	Medicine	A therapeutic alliance that is a collaboration that enables patients and healthcare practitioners to exchange information and reach a consensus on treatments
Khair (2014)	Medicine	A mutual agreement regarding the best way for the patient to take responsibility for their therapy
Ose et al. (2012)	Medicine	Consent between clients and their physicians about duties linked to their wellness that is indicative of the patient's and provider's cooperation
Taube (2016)	Medicine	An exchange of information and dialogue between physicians and patients to reach a consensus regarding the best course of action in terms of medical diagnosis and treatment

Table 1 (Cont.)

Thornton et al. (2011)	Medicine	The extent of agreement between a doctor and a patient
Wahyuni et al. (2018)	Medicine	A harmonious method of collaboration wherein medical professionals, patients, and other health workers carry out treatment actions with a focus on consultation. All parties agree to choose the course of treatment and integrate their perspectives based on the partnership principles
Cheesman (2006)	Nursing	A process of prescribing and medicine-taking based on partnership
Courtenay et al. (2011)	Nursing	The patient and the medical professional partnership to decide on the health issue and course of treatments
Cox (2012)	Nursing	The therapeutic alliance between the patients and the prescribers where their work in the consultations involves a negotiation between equal counterparts
Fraser (2010)	Nursing	Clinicians' appreciation of the patient's viewpoint on their illness to promote partnership and create an agreement with equal relationship and shared responsibility
Giddens (2017)	Nursing	A regimen that both parties agree upon through discussion and joint decision-making
Green and Jester (2019)	Nursing	Information exchange and the creation of mutually agreed-upon objectives
Hart et al. (2016)	Nursing	The therapeutic alliance during consultations with a discussion between equal partners
He et al. (2015)	Nursing	A process wherein patients and healthcare workers build an equitable and cooperative partnership, actively collaborate via a transparent sharing of information and choose treatment plans after giving patients' wishes adequate consideration
Hemingway and Snowden (2012)	Nursing	The process of informed consultation between the patient and the medical provider that results in a treatment plan and continuous evaluation of the best course of action
Hobden (2006)	Nursing	A consultation which enables mutual respect for patients and professionals' beliefs
Kaufman (2014)	Nursing	A method of informative communication between the doctor and patient in which the therapy is decided upon and properly monitored by regular evaluation
Latter et al. (2007)	Nursing	The patient and providers create a partnership in reaching an agreement on health issues and treatments
Lehane and McCarthy (2009)	Nursing	A partnering approach to the prescription and administration of drugs
Marland et al. (2012)	Nursing	The process of informed dialogue between patients and medical experts, which results in a treatment plan that is agreed upon and continuously evaluated to determine the best course of action
McKinnon (2013)	Nursing	A partnership in which both professionals and patients are treated as equal partners and patients are acknowledged as authorities in their own lives
Randall and Neubeck (2016)	Nursing	The process of developing a mutually agreed treatment plan
Saidi et al. (2019)	Nursing	The degree of communication between patients and clinicians based on the ailments and the necessity of therapy or the process of consultations between patients and healthcare providers
Shaw and McMillan (2008)	Nursing	A settlement negotiated between the patients and a medical practitioner that honors the patient's values and preferences on the administration of care or the timing and mode of taking medicine
Snelgrove (2006)	Nursing	In contrast to more traditional paternalism, the patient is an equal partner who supports the culture of collaboration in making decisions
Snowden and Marland (2013)	Nursing	The process for creating treatment plans that all parties agree upon
Snowden et al. (2014)	Nursing	The process of informed patient-provider communication, which contributes to a treatment plan that is agreed upon and continuously evaluated to obtain the best course of action
Stanton et al. (2016)	Nursing	Patients receiving information to enable them to take an active role in their own care, participate in consultation, and receive assistance throughout treatments
Treharne et al. (2006)	Nursing	The process of knowledgeable dialogue between the patients and their medical provider to obtain a treatment plan that is agreed upon and continually assessed as the best course of action
Tusaie and Fitzpatrick (2012)	Nursing	Process of developing a mutually agreed-upon treatment

### Determining Defining Attributes

From the above definitions, the authors identified the phrase that arises the most frequently and manually categorized prospective words with similar meanings into each keyword cluster to obtain attributes.

#### Attribute 1: Communication process

Concordance is characterized by the communication process between the patients and health professionals in the consultation to explain the illness in question (Clucas et al., 2011; Taube, 2016). The communication process involves an open exchange of information (Green & Jester, 2019; He et al., 2015). Patients and clinicians exchange information, opinions, and values that emphasize improving the patient's understanding and lead to an agreed treatment plan.

#### Attribute 2: Therapeutic partnership

The therapeutic partnership is a characteristic of working together between the patients and health professionals as an equal power (Pandia et al., 2019; Snowden & Marland, 2013) with negotiation and mutual respect for patients' wishes, attitudes, beliefs, and experiences (Cox, 2012; Ng et al., 2018). The partnership also reflects a therapeutic alliance where the patients and health professionals collaborate (Atal et al., 2019; De Mauri et al., 2022) in shared decision-making (Pandia et al., 2019) about treatment plans, and health professionals present an alternative treatment plan. The patients have the autonomy to choose the appropriate treatment plan that is similar to their lifestyle based on enough information.

**Attribute 3: Agreement on treatment regimens**

The agreement is an essential and explicit attribute of concordance (Snowden & Marland, 2013). It occurs when the healthcare professional's treatment plan is similar or harmonious to the patient's opinion and lifestyle (Randall &

Neubeck, 2016; Taube, 2016). The treatment plan is generated from goal setting and planning between the healthcare professional and patient, emphasizing patient-centeredness (Atal et al., 2019).

The attributes of concordance are shown in Table 2.

**Table 2** Defining attributes of concordance

Keyword Cluster	Sources	Attribute
<ul style="list-style-type: none"> <li>• Informative dialogue</li> <li>• Open exchange of information</li> <li>• Providing time to give explanations for illness</li> <li>• The patient and doctor's interactions and communication</li> <li>• Sharing information and each other's understanding, values, and beliefs</li> </ul>	(Cohen, 2009; De Mauri et al., 2022; Green & Jester, 2019; He et al., 2015; Hemingway & Snowden, 2012; Kaufman, 2014; Marland et al., 2012; Treharne et al., 2006; Wahyuni et al., 2018)	Communication process
<ul style="list-style-type: none"> <li>• Respect patients' desires and beliefs</li> <li>• The patients and healthcare professionals participate as partners</li> <li>• Shared decision-making</li> <li>• Therapeutic alliance</li> <li>• A partnership with equality and collaboration</li> <li>• Working together</li> <li>• Appreciating patient's views</li> </ul>	(Atal et al., 2019; Bylund et al., 2010; Courtenay et al., 2011; De las Cuevas, 2011; De Mauri et al., 2022; Giddens, 2017; Hart et al., 2016; Ng et al., 2018; Ose et al., 2012)	Therapeutic partnership
<ul style="list-style-type: none"> <li>• Agreeing on illnesses and treatments</li> <li>• Physicians and patients' agreement on a therapeutic decision</li> <li>• Mutually agreed-upon treatment</li> <li>• Agreeing on decision-making regarding treatment processes</li> <li>• Consent between patients and doctors</li> </ul>	(Brack et al., 2013; Courtenay et al., 2011; De Mauri et al., 2022; Khair, 2014; Thornton et al., 2011; Trimarco et al., 2023; Tusaie & Fitzpatrick, 2012; Wahyuni et al., 2018)	Agreement on treatment regimens

**Identifying a Model Case**

Finding a model case is the next stage in the idea investigation of concordance. A model case is a concept application that exemplifies the concept's distinguishing characteristics (Walker & Avant, 2019).

*Sofia is a stage 4 chronic kidney disease (CKD) patient under the care of Nurse Emma. Today, she has a follow-up appointment with Emma. Sofia consults Emma about her health problems and how to restrict her daily protein intake. She explains that she does not know which foods contain protein and does not understand the reason for limiting it (Communication process). Emma listens intently to Sofia's concerns and explains why protein restriction is important. Emma recommends vegetables and grains as the main components of a meal, providing examples of low-protein dishes such as a thinly cut chicken sandwich with vegetables and fried white rice topped with a small amount of chicken or tofu and vegetables. Sofia loves pasta, so she asks Emma about pasta dishes she can eat. Emma suggests pasta low in protein served with roasted vegetables and tomato sauce. Sofia mentions that she usually eats pasta with seafood and asks if she can still have it. Emma recommends shellfish such as lobster, crab, and shrimp (Therapeutic partnership). Sofia then says, "At home, we have dinner together, so it's difficult to restrict protein intake as recommended. What should I do?" Emma and Sofia discuss this and jointly set a goal for protein restriction that suits Sofia's lifestyle and family context. Sofia is happy with the diet plan they have designed together and agrees to follow it (Agreement on treatment regimens).*

This case encompasses a communication process, therapeutic partnership, and agreement on treatment regimens, which are the complete attributes of concordance. The patient communicates her situation and needs to the nurse. The patient is treated as an equal partner. They work together to find the solution while exchanging information and

discussing until reaching a consensus on the diet plan. Finally, they both agree upon the choices the patient makes.

**Identifying Borderline and Contrary Cases**

**Borderline case**

A borderline case includes the majority, but not all, of the characteristics that define the concept (Walker & Avant, 2019).

*Samantha is a community nurse who provides care for chronic illness patients. Christopher, 68 years old, is Samantha's patient who has diabetes, hypertension, and early-stage CKD. He has to take medications and maintain nutrition control. Today, Christopher has a follow-up with Samantha about nutrition control. Christopher and Samantha talk about how to control his diet in a way that is appropriate for Christopher's lifestyle. Christopher mentions having no idea what he should eat. His vision is not as good as that of young people, so it is difficult for him to read food labels (Communication process). To suggest healthy diets, Samantha uses her smartphone to show pictures of healthy dishes Christopher may like. She points at the ingredients in the pictures and explains what they are. She asks Christopher to try to cook these dishes as they are good for his condition. Christopher thinks the food she recommends is easy to cook and agrees to follow her suggestions (Agreement on treatment regimens).*

This case contains most attributes of concordance, which are the communication process and agreement on treatment regimens. The patient communicates his difficulty in performing diet control, and the nurse addresses his difficulty by showing pictures of healthy dishes that the patient agrees to try. However, the therapeutic partnership attribute is missing. The nurse makes suggestions she thinks the patient will like but fails to treat the patient as an equal partner. She does not ask him about his opinions, preferences, and contexts that may influence his food choices.

### Contrary case

A contrary case is an obvious illustration of a situation that does not fit the idea of concordance, which is non-concordance.

*Lena has diabetes, and she has a follow-up appointment with her nurse today. Her test results indicate a high level of blood glucose. Therefore, in addition to medications, her nurse assigns her a strict diet plan to lower intakes of sweet food and carbohydrates (No communication process). Lena feels that this strict diet plan would be challenging for her because she is a patisserie chef and usually needs to taste the cakes she makes. However, she does not want to say anything because she fears it would cause an argument with the nurse, so she let the nurse decide (No therapeutic partnership). Deep down, she disagrees with the strict diet plan given by the nurse and does not want to follow it (No agreement on treatment regimens).*

This case has none of the attributes of concordance. The nurse assigns the diet plans without letting the patient explain her situation or what she wants. The patient is not an equal partner with the nurse, and the diet plans are based on the nurse's decision, resulting in the patient's disagreement with the plans.

### Identifying Antecedents and Consequences

#### Antecedents

Antecedents take place prior to the concept's existence (Walker & Avant, 2019). The identified antecedents of concordance are provider-patient relationship, patients' beliefs, healthcare providers' characteristics, and complexity of treatment plans.

A strong provider-patient relationship built on openness and trust is the cornerstone of concordance (De Mauri et al., 2022). Patients with good provider-patient relationships develop a deep trust, believing their providers consider the patient's best interests when deciding on treatments. This makes the patients feel comfortable participating in shared decision-making and agree with their providers (Eliacin et al., 2015). A trustful provider-patient relationship allows for a greater likelihood of patients disclosing information to their providers during the communication process, as patients trust that their providers will give them the best care and be honest with their healthcare choices (Wu et al., 2022). A good patient-doctor relationship also leads the patients to agree with the doctors' recommendations and promotes patient concordance (Thomas et al., 2023).

Patients' beliefs and attitudes about treatment plans or medical regimens are essential factors that influence concordance (Randall & Neubeck, 2016). Patients with a high level of attitude show good concordance with healthcare professionals (Pandia et al., 2019). In contrast, patient's beliefs that only medical professionals have the authority to decide and that asking questions may jeopardize the quality of care can impede shared decision-making (Alsulamy et al., 2020), which affects concordance.

Healthcare providers' characteristics contribute to concordance. Healthcare providers' consideration of patients' perspectives helps to establish a partnership and create an agreement between them. In contrast, patients' participation in shared decision-making is hampered by healthcare providers' lacking interpersonal skills, negligence

in asking patients about the role they want to play in decision-making, failure to listen to or respect patients' queries or viewpoints, and assumptions that patients do not need to be a part of decision-making (Alsulamy et al., 2020). In order to gain insight into the patient's actual issues, healthcare providers should ask open-ended questions and let patients speak for the most part of their communication, as well as give patients time to consider their own ideas and politely offer encouragement (Hart et al., 2016).

The complexity of treatment plans is a factor that can influence concordance (Aronson, 2007). Therapeutic failure occurs as a result of complex medication regimens, which may involve administering multiple medications at odd or frequent times throughout the day or mistiming drug administration. For example, in the diabetes context, the complexity of the insulin regimen caused patients to miss injections, which led to fear of being blamed by healthcare providers. This, in turn, kept patients from having open communication about their conditions (Mathew et al., 2022). Patients who were prescribed many drugs had a greater risk of being non-concordant (Lloyd et al., 2014).

#### Consequences

Walker and Avant (2019) define consequences as those occurrences that follow the concept's manifestation. The consequences of the concordance concept extracted from the literature review include improved adherence and compliance, improved clinical outcomes, and better quality of life.

*Improved adherence and compliance.* Concordance can increase adherence and compliance (Atal et al., 2019). A study in tuberculosis (TB) patients revealed that good concordance was associated with 3.4 times better medication-taking behavior, leading to higher adherence or compliance (Wahyuni et al., 2018). Another study on TB patients showed that patients with high concordance had a 2.6 greater likelihood of high compliance (Pandia et al., 2019). In human immunodeficiency virus (HIV) patients, an elevated degree of concordance between doctors and patients during the decision-making process increased adherence to HIV therapy (Clucas et al., 2011).

*Improved clinical outcomes.* Since concordance contributes to patients' compliance and adherence, which involves following a prescribed treatment regimen, it also improves clinical outcomes. Greater concordance between physicians and patients when making decisions about HIV therapy was linked to increased CD4 cell counts ((Clucas et al., 2011). In a CKD study, patients with concordance had lower normalized protein catabolic rates and total cholesterol levels and higher bicarbonates than non-concordant patients (De Mauri et al., 2022). Moreover, therapeutic concordance dramatically enhances the effectiveness of antihypertensive medication among patients with therapy-resistant hypertension (Trimarco et al., 2023).

*Better quality of life.* Concordance indirectly affects the quality of life through a communication process where patients discuss their concerns related to quality of life with their health professionals. This discussion allows the professionals to incorporate the patients' worries into clinical care. When patients believe that their healthcare providers are aware of their priorities and work with them to manage their care, they have better health outcomes, resulting in a higher quality of life

(Thomas et al., 2021). Evidence showed that concordance contributed to a significant improvement in quality of life among TB patients (Pandia et al., 2019).

The antecedents, attributes, consequences, and the definition of the concept of concordance are summarized in Figure 1.

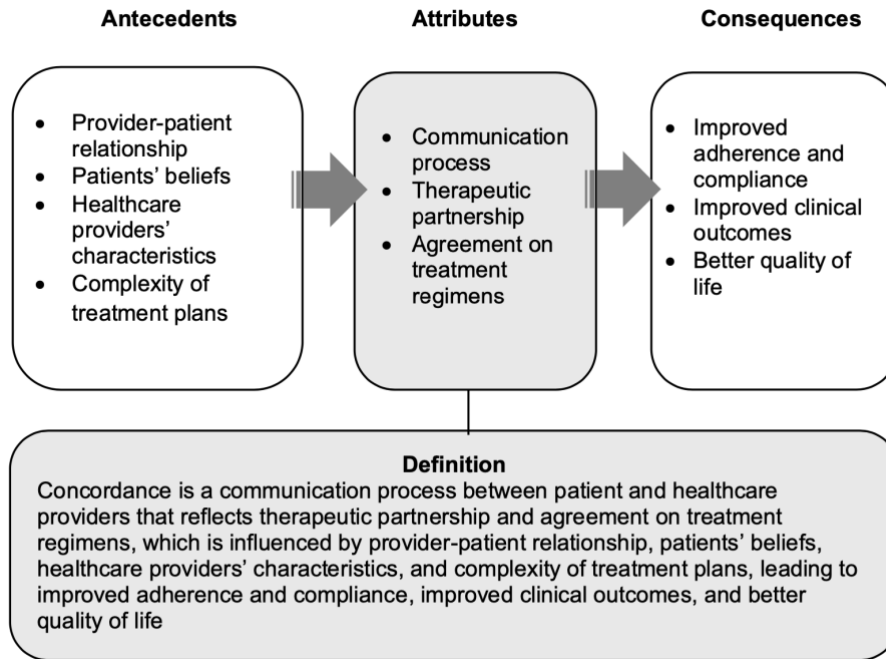


Figure 1 Antecedents, attributes, consequences, and definition of concordance

### Defining Empirical Referents

The empirical referents aim to quantify attributes rather than serve as tools for measuring concepts (Walker & Avant, 2019). The communication process is measured in several instruments, such as the Questionnaire on the Quality of Physician-Patient Interaction (QQPPI), which assesses the quality of doctor-patient interaction during a consultation, including exchange of information, involvement of patients, and decision sharing (Bieber et al., 2010) and the Client Perception of Coordination Questionnaire to assess overall impressions that patients have regarding all medical and social services (McGuinness & Sibthorpe, 2003). The therapeutic partnership is measured in the Patient Partnership in Care Questionnaire, which asks how confident patients are when managing their care (Powell et al., 2009). Moreover, it can be measured in the CADICEE tool that encompasses patient autonomy, patient involvement in care decisions, shared knowledge about the patient's health status or treatment, personal contexts of the patients, empathy, and acknowledgment of expertise; and patient-provider trust or confidence (Pomey et al., 2021).

As for agreement on treatment regimens, the Physician-Patient Questionnaire (PPQ) evaluates the degree of doctor-patient agreement in global aspects of the consultation, such as the patient's perception of doctors' discussion of the patient's understanding, fulfillment of the patient's expectations and satisfaction with consultation (Ahlen et al., 2007). The agreement between doctor and patient is also assessed through the patient's perception of the degree to which the doctors understand their situation and needs and the patient-doctor agreement on decision-making and care responsibilities (Banerjee & Sanyal, 2012).

### Discussion

Our findings provide support for distinguishing concordance from adherence and compliance. Based on the attributes found, concordance is a communication process between patients and healthcare providers that reflects therapeutic partnership and agreement on treatment regimens. This implies that concordance represents the aspects of interaction and relationship between healthcare providers and patients, which differ from adherence and compliance, which usually involve patients' behaviors in following healthcare advice (Thummak et al., 2023). Concordance, in contrast, incorporates several perspectives and advocates for decision-making equality between the providers and the clients, which drives toward patient-centeredness (Atal et al., 2019) that acknowledges the patient's personal experience and the right to comprehend the treatment being provided in light of their actual experience with the illness (Rae, 2021).

While our findings were consistent with another concept analysis where partnership and agreement were the attributes of concordance (Snowden et al., 2014), the attribute "communication process" is a new piece of knowledge. Concordance involves the interactions between patients and clinicians in which the patients communicate their expectations and beliefs (Rae, 2021). Communication also plays an important part in adherence and compliance, which are the consequences of concordance in our paper. This supports the concept analysis of patient compliance by Thummak et al. (2023) that communication of health recommendations was an antecedent of compliance. These findings strengthen the significance of concordance in nursing practice, as it potentially improves adherence and compliance. Thus, nurses should be trained to be active listeners so

patients feel comfortable communicating their needs and be seen as partners in designing nursing care. This will foster meaningful collaboration and sustain the active participation of patients (Kostiuk et al., 2023).

The antecedents of concordance were provider-patient relationship, patients' beliefs, healthcare providers' characteristics, and complexity of treatment plans. This emphasizes that healthcare providers need to be competent in creating a trustful relationship and consider the patients' backgrounds. Healthcare providers should be trained to interpret the way patients respond based on patients' socio-cultural backgrounds (Akinkulore, 2022). An awareness of problematic social contexts helps healthcare providers identify the contextual causes of patients' problems, increasing concordance to agree with desired actions.

From the empirical referents, the attributes of concordance are measured in separation. There is a lack of a specific tool that can comprehensively measure all attributes. Unlike adherence and compliance, which can be assessed in an objective manner in terms of the pill counts (Rae, 2021) or patients' reported medication-taking behavior (Thummak et al., 2023), concordance is more abstract since its attributes are more likely the perceptions of patients that can be challenging to quantify. Therefore, more research is needed to develop a comprehensive instrument to assess concordance thoroughly.

This paper has limitations. It provides insights broadly based on literature in various fields, but the authors did not employ a systematic approach to explore the concept. Further systematic investigation is needed to clarify concordance in specific contexts of patients or illnesses, as contextual differences may affect concordance (Atal et al., 2019).

## Conclusion

This analysis offers the attributes, antecedents, and consequences for clarifying the concordance concept as basic input for developing assessments and nursing interventions to increase patient concordance. The findings help inform routine nursing practice to communicate treatment options in a manner where patients are viewed as equal partners who can share their views and beliefs related to their conditions in a trusting relationship. Nurses can be trained with effective communication strategies to improve patients' understanding of complex treatment plans while tailoring their consulting sessions based on the patients' diverse values, beliefs, and needs.

## Declaration of Conflicting Interest

The authors declare that there is no conflict of interest.

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## Authors' Contributions

**Anucha Taiwong** conceptualized, designed, and analyzed. **Wassana Uppor** designed, analyzed, drafted, and reviewed the manuscript. **Nisakorn Vibulchai** contributed to the analysis and the manuscript review. All authors provided final approval of the version to be published. All authors contributed equally to this study, and they read and approved the final manuscript and were accountable and entirely responsible for its content. The author met four authorship criteria based on ICMJE Recommendations.

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## Data Availability

Not applicable.

## Ethical Approval

Not Applicable.

## Declaration of Use of AI in Scientific Writing

The study did not use generative AI in the writing process of this article.

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