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The qualitative analysis of the cultural adaptation process of FACIT-Sp-Ex among chronically ill patients in Poland

Abstract

Background: The FACIT-Sp-Ex questionnaire is a quantitative tool used by healthcare professionals to assess patients' spiritual well-being. This study aimed to culturally adapt the FACIT-Sp-Ex for Polish chronically ill patients and qualitatively analyze their feedback regarding the Polish translation.

Participants and methods: The FACIT multilingual translation methodology was employed according to the original authors' guidelines. Subsequently, ten chronically ill patients completed the translated questionnaire and were interviewed to assess their understanding of the Polish translation.

Results: No significant issues were encountered during the forward and backward translation processes, and the final Polish version of the FACIT-Sp-Ex scale was stylistically and culturally adapted to Polish conditions. It was found to be comprehensible and posed no major difficulties to the respondents.

Conclusions: The Polish version of the FACIT-Sp-Ex, being culturally and linguistically adapted, is ready for use in assessing patients' spiritual well-being and can be utilized in both research and clinical practice.

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Keywords: chronic disease, needs assessment, spirituality, validation study, spiritual care

Introduction

The direction of research in spirituality and medicine has evolved significantly over the past few decades. Early studies explored understanding of the concept and focused on identifying spiritual needs that patients express during illness, particularly at the end of life [1]. Later on, there have been international efforts to improve spiritual care not only in palliative care but in healthcare generally. Researchers also focused on understanding whether and how various groups of patients desired spiritual care from healthcare providers and identifying the barriers clinicians face in providing such care [2, 3].

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More recently, the focus has shifted towards integrating spirituality into patient care in more specific, evidence-based ways. Modern research now often centers on actionable strategies for enhancing spiritual well-being within a clinical setting. This includes creating a framework, where training of healthcare providers enables them to be the first line of support in the clinical setting. Additionally, studies are increasingly concerned with measuring the impact of spiritual interventions on health outcomes, such as mental health, quality of life, and coping mechanisms during chronic illness [4].

Spiritual well-being

Spiritual care is an essential element of modern medicine. Healthcare professionals should have basic competencies in it. One of those competencies is to assess patients' spiritual well-being level [5]. More and more research shows that spiritual well-being correlates negatively with the intensity of symptoms of chronic diseases and positively with adaptation to illness, fostering hope for good quality of life despite incurable disease [6]. The evidence suggests that while religiosity can be a way to deepen and express spirituality. However the benefits to health and well-being are more closely tied to the depth and quality of one's spiritual experience, rather than merely the intention or attempt to engage in religious practices. For example, individuals who derive a strong sense of purpose, connection, and inner peace through their spiritual practices — whether religious or non-religious — tend to exhibit better psychological resilience, reduced stress, and improved coping with chronic illness [7]. On the other side of the spectrum — spiritual distress is associated with poor quality of life [8, 9].

Relational aspect of spirituality

According to various definitions, spirituality is expressed by interpretations of the meaning and purpose of life, reference to transcendence, internal harmony, moral stance, and connectedness with other people [3, 10]. This last, relational aspect of spirituality is generally recognized as inseparable [2, 11]. The level of spiritual well-being can be quantified with various questionnaires. The majority of them (including Facit-Sp-12) do not assess the relational aspect of spirituality. Especially in the Polish language, there is a scarcity of tools with questions about connectedness.

FACIT-Sp-Ex is unique in the way that it looks into details of a person's spiritual attitudes to other people. It has been therefore suggested to be translated and used in studies on efficacious spiritual interventions, especially involving relationship building between the medical professional and the patient [12]. The very assessment of spirituality can lead to a stronger therapeutic relationship between the patient and the medical staff and to an increased spiritual well-being [13]. Therefore, this study aimed to culturally adapt and validate a quantitative tool, FACIT-Sp-Ex, to measure patients' spiritual well-being levels.

Participants and methods

Study design

The multilingual translation methodology provided by FACIT.org was employed. Subsequently, a qualitative descriptive study consisting of individual interviews with chronically ill patients was conducted in line with the COREQ checklist (consolidated criteria for reporting qualitative research) [14].

Study participants

A convenience sample of ten patients was included in the study according to inclusion criteria: chronic illness, availability, and willingness to take part in the study.

Tool

Functional Assessment of Chronic Illness Therapy — Spiritual Well-Being Expanded Version (FACIT-Sp-Ex), version 4 has 23 items. It consists of exactly the same 12 questions as in Facit-Sp-12 (items 1–8 comprise of the subscale called "meaning/peace", items 9–12 comprise of the subscale "faith") and also additional ten items 13–23 which assess connectedness or the relational aspect of spirituality. However, they were not grouped into a separate subscale by the original authors. FACIT-Sp-Ex is intended for patients of 18 years and older to recall a period of the past 7 days. The responses are gathered on a 5-point Likert-type scale. It can be administered both on a paper sheet and via electronic form, it can be both self-administrated and *via* an interview, time for completion is approximately 5–10 minutes. There is a manual scoring template, some items are reverse-scored. The translation of the tool was carried out using the FACIT linguistic validation methodology, which emphasizes a universal approach to translation. It also uses qualitative methods of testing to establish the equivalence of meaning and measurements between different language versions. The tool was translated by two independent bilingual translators, next, a third independent bilingual person reconciled the two forward translations by choosing the better of the two and resolving discrepancies between them. This reconciled version was translated back into English by a native English-speaking translator fluent

in the target language, without referring to the original text. The FACIT.org examined the back-translation for any discrepancies compared to the source version and evaluated its equivalence with the original text. Following this, a final review was conducted by an independent native-speaking researcher. Finally, the target-language version was tested with patients.

Data collection

Three interviewers conducted the interviews (MK, BD, and MM) from May to July 2024. These facilitators were of the following professions: one physician and two nurses. The investigators were trained in qualitative research to conduct field interviews and data coding in the analysis process. They had established relationships with some of the patients before the study commencement. The patients were informed about the aims of the study and the steps of the interview. Patients were approached face-to-face or by e-mail. All answers were recorded on a structured form sheet prepared by FACIT org. for cultural adaptation of the scale. Questions were asked according to form sheets related to feedback regarding the Polish translation and also patients' understanding and experiences related to the items of the questionnaire. Researchers who conducted interviews discussed data collected continuously and felt that theoretical saturation was accomplished with the 10th interview [15].

Ethical issues

Permission to use the FACIT-Sp-Ex was obtained from the FACIT group. This study was performed in line with the principles of the Declaration of Helsinki. The Bioethics Committee of the Medical University in Poznań has confirmed that no formal ethical approval is required (decision number KB-570/24). Verbal informed consent was obtained from all patients included in the study. Patients were informed about the aim of the study and the possibility of withdrawing from the study at any time. Protection of privacy and anonymity was ensured during the entire process of data collection. Each patient was given a specific code according to FACIT group rules, which helps in data reporting and anonymization of data collected (POL960-969).

Analysis

Thematic content analysis was undertaken through reading and re-reading collected material. Differences and similarities in patients' understanding of each item of the FACIT-Sp-Ex scale were identified. Next, specific patterns referring to spirituality and spiritual well-being were discovered. Authors followed criteria for trustworthiness: (1) Credibility, (2) Transferability, (3) Dependability, (4) Confirmability [16]. Specifically interviewed patients fulfilled inclusion criteria. Moreover, the researchers who conducted interviews were not related to patients in any way. Three researchers conducted interviews separately and the data collected was continuously discussed among researchers. Interviews were guided with the structured form sheet so that each patient was asked the same questions.

Results

Study participants

Ten chronically ill patients completed the translated scale and were interviewed to assess their understanding of the Polish translation from their perspective on spirituality and spiritual needs. All participants were born in Poland. Most testing sites were in Kraków, Lublin, Kielce, and Poznań. All the interviews were conducted in Polish in the form of face-to-face interviews (4 cases) or by e-mail (6 cases). The age of the participants ranged from 30 to 91 years old. The gender distribution was predominantly female, with one male participant. The activity levels of the participants in this pilot study indicate varying degrees of physical limitation among chronically ill patients. The majority (seven participants) required bed rest for less than 50% of their waking day. Three participants required bed rest for more than 50% of their waking day.

This distribution highlights that while most participants were relatively more active, a significant portion still faced substantial physical limitations, requiring extended periods of bed rest. These variations in activity levels underscore the diverse health conditions and needs among chronically ill patients, which is crucial for understanding their feedback on the FACIT-Sp-Ex questionnaire. More detailed data, along with FACIT-Sp-Ex score can be found in Table 1. To the authors' understanding, it could be generally considered that: patients who scored: 0–23 points have spiritual distress, patients who scored: 24–46 points have low spiritual well-being, patients who scored: 47–69 have moderate spiritual well-being and patients who scored: 70–92 points have high spiritual well-being.

Thematic analysis of patients' understanding

The translation of the original FACIT-Sp-Ex scale from English to Polish required some changes in the phrasing of the items (Table 2). There were no items on the questionnaire that were considered irrelevant or offensive to any of the participants. The majority of participants (eight out of ten) reported no difficulties in understanding the questionnaire. Two participants (POL968 and POL969) indicated that some items on the questionnaire were difficult to understand.

Table 1. Demographic data and FACIT-Sp-Ex score

Patient number	Age	Gender	Activity level	FACIT-Sp-Ex score
POL960	35	Female	2***	58 out of 92
POL961	59	Female	3****	73 out of 92
POL962	75	Female	2***	66 out of 92
POL963	91	Female	2***	49 out of 92
POL964	36	Female	3****	84 out of 92
POL965	36	Female	2***	41 out of 88
POL966	31	Male	2***	55 out of 92
POL967	30	Female	2***	28 out of 92
POL968	48	Female	2***	52 out of 92
POL969	56	Female	3****	69 out of 92

*Activity level 0 — normal, no symptoms; **activity level 1 — there are symptoms but the patient doesn't require bed rest during the day; ***activity level 2 — requires bed rest for less than 50% of their day, ****activity level 3 — requires bed rest for more than 50% of their day

Table 2. The FACIT Sp-Ex in the original and Polish versions

Item	The FACIT Sp-Ex (original version)	The FACIT Sp-Ex (Polish version)
Sp1	I feel peaceful	*Odczuwam spokój*
Sp2	I have a reason for living	*Mam po co żyć*
Sp3	My life has been productive	*Moje życie jest owocne*
Sp4	I have trouble feeling peace of mind	*Trudno mi osiągnąć spokój ducha*
Sp5	I feel a sense of purpose in my life	*Mam poczucie celu w życiu*
Sp6	I am able to reach down deep into myself for comfort	*Potrafię sięgnąć w głąb siebie, aby znaleźć ukojenie*
Sp7	I feel a sense of harmony within myself	*Czuję, że jestem w harmonii ze sobą*
Sp8	My life lacks meaning and purpose	*Mojemu życiu brakuje sensu i celu*
Sp9	I find comfort in my faith or spiritual beliefs	*Znajduję ukojenie w mojej wierze lub przekonaniach duchowych*
Sp10	I find strength in my faith or spiritual beliefs	*Czerpię siłę z mojej wiary lub przekonań duchowych*
Sp11	My illness has strengthened my faith or spiritual beliefs	*Moja choroba umocniła moją wiarę lub przekonania duchowe*
Sp12	I know that whatever happens with my illness, things will be okay	*Wiem, że bez względu na to, jak potoczy się moja choroba, wszystko będzie dobrze*
Sp13	I feel connected to a higher power (or God)	*Czuję się połączony/a z siłą wyższą (lub z Bogiem)*
Sp14	I feel connected to other people	*Czuję się połączony/a z innymi ludźmi*
Sp15	I feel loved	*Czuję się kochany/a*
Sp16	I feel love for others	*Czuję miłość do innych*
Sp17	I am able to forgive others for any harm they have ever caused me	*Jestem w stanie przebaczyć innym krzywdy, które kiedykolwiek mi wyrządzili*
Sp18	I feel forgiven for any harm I may have ever caused	*Czuję, że wybaczono mi każdą krzywdę, którą mogłem/am kiedykolwiek wyrządzić*
Sp19	Throughout the course of my day, I feel a sense of thankfulness for my life	*W ciągu dnia czuję wdzięczność za moje życie*
Sp20	Throughout the course of my day, I feel a sense of thankfulness for what others bring to my life	*W ciągu dnia czuję wdzięczność za to, co inni wnoszą do mojego życia*
Sp21	I feel hopeful	*Czuję się pełny/a nadziei*
Sp22	I feel a sense of appreciation for the beauty of nature	*Czuję uznanie dla piękna natury*
Sp23	I feel compassion for others in the difficulties they are facing	*Współczuję innym w trudnościach, które mają*

Patients were asked to describe their own deeper understanding of items Sp13–23 of the translated FACIT-Sp-Ex questionnaire. FACIT-Sp-Ex consists of exactly the same 12 questions as FACIT-Sp-12 which has already been translated, culturally adapted, and validated in Poland [17]. Those questions were not a part of the assessment of patients' understanding of the Polish translation. However, following FACIT.org translation guidelines patients were asked to comment on each of the translated items of FACIT-Sp-Ex. In this process items Sp3 and Sp 11 were identified as difficult to understand. Therefore patients were asked to describe their own deeper understanding of Sp3 and Sp11 as well.

First of the difficult items identified by participants was Sp3, "My life is productive" (which was tested as "*Moje życie jest produktywne"*). Some patients found the term "productive" to be ambiguous or difficult to relate to their personal situation. Most patients found the statement clear and easy to understand, interpreting productivity in a broad sense that includes both professional and personal achievements. However, some patients expressed concerns about the potential for misunderstanding the term "productivity", noting that its interpretation could vary based on individual circumstances and social roles. One respondent was uncertain about the meaning of "productive", particularly in the context of being in a hospital and not engaging in typical productive activities, yet still considered the time potentially productive in other ways. Ultimately, the authors tested a Polish cognate of this source word: "*owocne*", meaning in English "fruitful". Based on patients' responses we've concluded that "*owocne*" is the best conceptual equivalent in Polish.

The translated item Sp11, "My illness has strengthened my faith or spiritual beliefs" (which was tested as "*Moja choroba umocniła moją wiarę lub przekonania dotyczące życia duchowego"*) was generally clear to participants, with most finding it understandable. However, feedback suggested alternative phrasing could improve clarity. Namely English "spiritual beliefs"/ /Polish "*przekonania duchowe"* was more appreciated than English "beliefs concerning spiritual life"/Polish "*przekonania dotyczące życia duchowego*". The participants provided varied responses on how their illness has influenced their faith or spiritual beliefs. Some reported a strengthened faith, often through prayer or a deeper connection with God, finding solace and understanding in their spiritual practices. Others experienced gratitude and saw their survival as proof of divine miracles. Conversely, a few participants did not feel that their illness affected their faith, with some stating that faith is not part of their life at all. One patient (POL965) explained: "Illness can either distance a person from faith or bring them closer to it. This is a very individual matter connected to personal experiences. If faith is strengthened, it becomes very enduring and has a profound impact on the entire person who is ill".

These suggestions did not affect the meaning of the questions. Following the corrections made, the questions became better adapted to Polish conditions.

Most patients found item Sp13, "I feel connected to a higher power or God" (which was tested as "*Czuję się połączony/a z siłą wyższą lub z Bogiem*"), clear and easy to understand, with one exception (POL969), who needed clarification on the term "connected". Interpretations of the item varied, ranging from viewing God as a source of strength (POL960 and POL965), feeling a constant connection and presence (POL961, POL962, and POL969), and even an experience of a deep bond with God (POL964), while two patients expressed a lack of faith entirely (POL966 and POL967).

The responses regarding item Sp14, "I feel connected to other people" (which was tested as "*Czuję się połączony/a z innymi ludźmi*"), reveal a variety of interpretations and personal experiences. Some patients see the connection as involving interaction, understanding, and support from others (POL960); others express that they have a continuous feeling of empathy (POL962). Relationships with friends and family are highlighted as fundamental aspects of feeling connected (POL961 and POL963). One patient shared a profound narrative about their life experiences, emphasizing the importance of meeting supportive people during both good and bad times. This patient explains how their illness initially felt isolating but eventually led to deeper connections and a desire to help others (POL964). Feeling needed and cared for by others was also mentioned by two other patients (POL965 and POL966). Two others understood connection as a bond that is characterized by trust, and shared values for example in religious or community groups (POL967 and POL968). The ability to rely on others for support and have a bond with them, similar to a spiritual connection was also discussed(POL969).

All patients found the item Sp 15, "I feel loved" (which was tested as "*Czuję się kochany/a*"), clear and easy to understand. Four themes were expressed: acceptance and care despite illness (POL964, POL965, POL966, and POL968), love from family and other close relationships (POL960, POL961, POL962, POL963, POL965, and POL968), divine love (POL964, POL967, and POL969), and support from community and strangers (POL964 and POL968).

Item Sp 16, "I feel love for others" (which was tested as "*czuję miłość do innych*"), led patients to talk

about the following topics: love for family and other close relationships (POL962, POL964, and POL966), generalized love and goodwill (POL967, POL968, and POL969), selective love and moral judgment (POL961 and POL965). Importantly, POL960 revealed a struggle to separate feelings of love from the influence of illness, leading to occasional unpleasant reactions due to frustration, pain, and stress.

Item Sp 17, "I am able to forgive others for any harm they have ever caused me" (which was tested as "*Jestem w stanie przebaczyć innym krzywdy, które kiedykolwiek mi wyrządzili*"), inspired the following themes: difficulty in forgiving fully those who have wronged us (POL960); struggling to forgive (POL962 and POL969); complete affirmation of forgiveness (POL963, POL965, and POL965); experience of forgiving despite severe hurt (POL961); and understanding the process of forgiveness (POL964, POL967, and POL969).

Regarding item Sp 18, "I feel forgiven for any harm I may have ever caused" (which was tested as "*Czuję, że wybaczono mi każdą krzywdę, którą mogłem/am kiedykolwiek wyrządzić*"), the following themes were identified: reflection on past actions (*e.g.*, POL960, POL964, and POL969 expressed a desire for forgiveness and hope that they have not caused significant harm to others); personal experiences (POL961 and POL965 shared specific instances in which they have been forgiven by others); inner peace (POL962 and POL967 described forgiveness in terms of personal conscience and self-reflection); acknowledgment of human fallibility (POL964 acknowledged the inevitability of causing harm unintentionally due to human nature and stressed the importance of addressing any wrongdoings); theological perspective (POL968 and POL969 understood forgiveness as an act pleasing to God and an essential aspect of their beliefs). Interestingly, POL966 explicitly stated not experiencing feelings of forgiveness at all.

Item Sp19, "Throughout the course of my day, I feel a sense of thankfulness for my life" (which was tested as "*W ciągu dnia czuję wdzięczność za moje życie*"), was understood by patients in the following ways: reflecting on good moments throughout the day (POL960 and POL968); finding gratitude in some activities (POL961 and POL962 mentioned social interactions and walks); gratitude that encompasses existential dimension (POL963, POL964, and POL969 highlighted the value of life and daily survival); appreciation despite illness (POL965, POL966, and POL967 focused on resilience and finding joy in small, positive aspects of life).

Patients comments regarding item Sp20, "Throughout the course of my day, I feel a sense of thankfulness for what others bring to my life" (which was tested as "*W ciągu dnia czuję wdzięczność za to, co inni wnoszą do mojego życia*"), allowed for the identification of four themes: gratitude for loved ones (POL960, POL961, POL962, POL963, POL964, POL965, and POL967); joy in daily interactions (POL964, POL967, and POL969); learning and inspiration from others: (POL960, POL962, POL964, and POL969); one patient interpreted it as expressing gratitude towards God for the people around her (POL964).

Based on the patients' statements, here are three key themes related to their perspectives on item Sp21, "I feel hopeful" (which was tested as "*Czuję się pełny/a nadziei*"): motivation and strength (POL960, POL964, POL965, and POL967 viewed hope as a crucial resource to escape daily battles and strive for a fulfilling life); optimism (POL963, POL968, and POL969 associated hope with a positive attitude towards the future); hope amidst suffering (POL961, POL964, POL966, and POL967 discussed hope in the context of enduring illness, providing a belief that things will improve). However, one patient noted that illness has significantly diminished their hope (POL966).

Item Sp22, "I feel a sense of appreciation for the beauty of nature" (which was tested as "*Czuję uznanie dla piękna natury*") was familiar and straightforward for the patients, who discussed the following themes: nature as a source of peace and joy (POL960, POL961, POL962, and POL964 emphasized the calming and mood-improving qualities of walks and "forest baths"), spirituality and nature (POL960, POL964, and POL965 considered connection to nature as a spiritual practice and experience of a connection to the transcendent through nature's grandeur); deep admiration for nature (POL963, POL964, POL966, and POL967 acknowledged the cohesive unity of nature's beauty and that they approach it with respect); environmental concerns (POL968 and POL969 stressed the need to protect the environment).

Patients' statements regarding item Sp23, "I feel compassion for others in the difficulties they are facing" (which was tested as "*Współczuję innym w trudnościach, które mają*"), can be grouped in the following themes: increased empathy (POL960 and POL969 said that experiencing constant pain has made them not wish the same hardships on others); understanding others (POL961, POL965, and POL968 expressed compassion for other patients' struggles and feelings); sympathy (POL963, POL966, and POL967 acknowledged others' situations with a supportive attitude); active efforts (POL962 talked about trying to help others); personal growth (POL964 shared that suffering taught them humility and increased sensitivity, spawned admiration for others' resilience).

Discussion

The present study is the first to introduce the Polish version of the FACIT-Sp-Ex based on official guidelines, which ensure that the translation is the most accurate. The analysis of the evaluations obtained from the patients surveyed allowed for the improvement of the scale in terms of language, grammar, and style. It ultimately resulted in a revised scale, which considered all suggestions. The tool was adapted both linguistically and culturally to the needs of the Polish patients.

Cultural and semantic validation of tools for assessing spirituality and spiritual well-being presents a challenge because spirituality involves abstract concepts that may not have direct translations in all languages. Words like "transcendence", "comfort", "peace" or "spiritual beliefs" can carry different meanings across cultures, making it difficult to find equivalent terms that fully capture the intended meaning [18, 19]. As previously observed, some concepts or terms used in the original scales may not have direct equivalents in other languages or may have different cultural connotations, making the translation quite demanding [20]. Bakker et al. encountered comparable difficulties related to linguistic details while adapting qualitative tools on spirituality to the Dutch cultural context [21].

In the present study, the scale was tested in the Polish nation, where 89.77% of respondents declared themselves as Catholic [22]. In Polish culture, the conversation about spirituality is primarily a part of school-taught religion classes and teachings hosted in the local churches, which means that the concept of spirituality is often intertwined with traditional Catholic religiosity. The broader idea of spirituality as a whole might be difficult to define by patients accustomed to the fact that the topic is brought up by clergy rather than health professionals [23]. Nonetheless, precisely non-religious aspects of spirituality might be crucial in clinical settings and these conversations could largely benefit chronically ill patients. Examples of different cultural understandings of spiritual care, spirituality, and its role in illness can be found also in Selman's study conducted across nine countries [23]. In the present study, patients were also asked to describe their own perception of each question of the FACIT-Sp-Ex questionnaire, therefore deeper understanding of the patients' concept of spirituality and spiritual well-being was facilitated. Some respondents considered their spirituality to be an important protective and mediating factor in coping with health problems. The role of faith as a resource for coping with illness is also consistent with previous research examining the role of spiritual well-being [24].

Here, through the question about the relationship with a Higher Power, the term connectedness was described as a feeling of constant connection with the presence of God. In another study conducted by Cavendish, respondents gave examples of how they understand their relationship with a Higher Power, for example through the belief in the presence of a Supreme Being whose companionship is reflected in the respondents' lives [25]. Relationships with friends and family are emphasized by the patients from the present sample as fundamental aspects of a sense of connectedness. Meeting with supportive people in both good and bad times, especially in the situation of illness was of importance. Maintaining a sense of community and receiving support was a key need in many other studies on patients' perceptions of spirituality [17, 26]. In Selby's study, patients emphasized that relationships with loved ones were crucial, and losing these connections significantly contributed to their spiritual suffering. This loss led to feelings of loneliness and isolation, becoming a key factor in their spiritual distress [27]. The literature defines the ability to establish meaningful connections with others in the community, family, or close relationships as a social dimension of spirituality [28].

Previous research on spirituality, religion, and chronic illness suggests that spirituality influences the way people cope with their illness, which was also confirmed in this study by the respondents' answers [29]. Religious involvement may play a crucial role in discovering meaning and purpose in life and being provided with a support system, especially in the context of illness. For some individuals, religion serves as a means to manage the difficulties that arise, particularly with chronic illness or disability [29]. Similarly, in the present study, some respondents said that illness strengthened their faith, often through prayer or a deeper connection with God. Others experienced gratitude and viewed their survival through illness as evidence of divine miracles.

In the present study, the feeling of thankfulness was understood by patients as a reflection on the good moments during the day and finding joy in small, positive aspects of life. Emmons' research has shown that gratitude is not just a positive emotion, but a fundamental aspect of spirituality that can significantly impact mental and physical health [30]. Gratitude as a spiritual practice is especially valuable for patients struggling with chronic illness or disability. Research indicates that patients who regularly practice gratitude often experience lower levels of stress, depression, and anxiety, which are common challenges in chronic illness [31]. They often find it by focusing on what is positive in their lives [32]. Recognizing and cultivating

a sense of gratitude in patients can be a tool in promoting healing and improving quality of life. Therefore, healthcare providers need to recognize the role of spirituality in patient care and support practices that encourage gratitude and other spiritual expressions.

The present investigation showed that respondents considered connecting with nature to be an important spiritual practice and associated a sense of transcendence with connecting with the power of nature. As proposed by Anandarajah and Hight "spirituality is reflected in various kinds of relationships and connections, with the individual self, the community, the environment and nature, and the transcendent entity" (*e.g.* a power greater than oneself, a value system, God) [33]. Nature is an important aspect of patients' spirituality, as it often allows them to experience a deep sense of peace, harmony, and unity with the world around them. Contact with nature can promote reflection, peace, and mental regeneration, which is important in the process of spiritual healing and avoiding spiritual suffering. Naor's study showed that models of therapy based on nature improve therapeutic effects. Through the experience of the vastness of nature, an expanded perspective, and a sense of interconnectedness, patients accept their surroundings, discover their authentic selves, and more easily establish relationships with the therapeutic team [34].

In the present research, a significant part of the respondents were female (9 out of 10). Research consistently shows that women are more likely to participate in scientific surveys than men, a trend attributed to various psychological and social factors. Studies suggest that women exhibit higher levels of altruism and prosocial behavior, which may contribute to their greater willingness to support research efforts. Additionally, women tend to report higher levels of trust in scientific and medical institutions, further encouraging their engagement in surveys, particularly on health and social issues. Understanding these participation patterns is essential for developing inclusive research methods and improving gender representation in data collection efforts [35].

Study limitations

The above-presented results should be interpreted with consideration of the study's limitations. This study was designed as a pilot study. The authors did not collect socio-demographic data, such as education, occupation, and religious affiliations of respondents or the type of their illness. The number of respondents is sufficient for the needs of cultural adaptation but the patient sample may not be suitable for any other analyses. In addition, the study design did not allow for the verification of the validity and reliability of the FACIT-Sp-Ex. In future studies, it is recommended to conduct cross-sectional studies with factor analysis, internal consistency, discriminant validity, and test-retest procedures. This indicates that further study can start from this aspect. To increase confidence in the scale's reliability and validity for international use, it is crucial to conduct further testing with a larger number of patients, across more study sites, and involving a variety of diseases and disability levels.

Moreover, the latest analysis by Koenig and Carey highlights important limitations of some quantitative measures like FACIT-Sp, which was found as contaminated with indicators of mental health like: meaning and purpose, peacefulness, harmony, strength, and comfort. This means that using the scale in studies related to health may lead to tautology, thus producing misleading results. Therefore, in studies investigating the relationship between spirituality and health (especially mental health), uncontaminated measures are recommended, where "the primary focus is on the transcendent" [36].

Conclusions

Despite these limitations, the current study is the first study in a Polish setting to culturally adapt and examine the validity of the FACIT-Sp-Ex version. As spiritual care continues to be recognized as a crucial component of holistic medicine, healthcare providers increasingly require competencies in assessing and addressing patients' spiritual needs. FACIT-Sp-Ex tool addresses the relational aspect of spirituality, an element often overlooked by existing assessments. This tool could provide a means for proving that deeper therapeutic relationships between patients and healthcare providers improve spiritual well-being.

The cultural adaptation of the FACIT-Sp-Ex involved translating and refining specific items to ensure clarity and relevance for Polish patients. While most participants found the questionnaire understandable, some modifications were made to improve the phrasing of certain items. The adapted scale maintained the original meaning while better aligning with Polish cultural and linguistic nuances. Feedback from patients demonstrated diverse interpretations of spiritual concepts, reinforcing the scale's relevance across various experiences. These findings align with broader research, which shows that spirituality, including its relational aspect, plays a significant role in coping with chronic illness and enhancing quality of life. Although the tool has been approved by the authors and is ready for use in Poland, these were pilot studies and further research on its psychometric properties remains essential.

Article information and declarations

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Data availability statement
Full data is available on demand.

Ethics statement
Permission to use the FACIT Sp-Ex was obtained from the FACIT group. This study was performed in line with the principles of the Declaration of Helsinki. The Bioethics Committee of the Medical University in Poznań has confirmed that no formal ethical approval is required (decision number KB-570/24). Verbal informed consent was obtained from all patients included in the study. Patients were informed about the aim of the study and the possibility of withdrawing from the study at any time. Protection of privacy and anonymity was ensured during the entire process of data collection.

Author contributions
All authors contributed to the study's conception and design. Material preparation, data collection, and analysis were performed by MWK, MM, and BD. The first draft of the manuscript was written by MWK and all authors commented on all versions of the manuscript. All authors read and approved the final manuscript.

Conflict of interest
The authors have no relevant financial or non-financial interests to disclose.

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Supplementary material
Polish version of the translated tool.

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