WHO ICD-11 Implications for TCM Diagnosis Experience of the Traditional Chinese Medicine School of Lisbon

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ABSTRACT: Traditional medicine is an integral part of health services in many countries around the world and has an increasing importance in the close and long-term response to many health conditions. The WHO, by including a chapter on TCM in the 11th revision of the International Classification of Diseases, not only draws attention to its impacts on the health of the population, but also seeks a better integration of its diagnosis, research and regulations in national health systems. Syndrome differentiation is a critical component in TCM diagnosis and treatment. It also has impacts on clinical practice, research and the appropriate use of the ICD-11's codes. This article aims to present: 1. The ICD-11 and its purpose; 2. Syndrome's concept and characteristics in TCM, its mutation and transformation dynamics; 3. The clinical practice of TCM and the methodology of syndrome differentiation; 4. The 25-year experience of the Traditional Chinese Medicine School of Lisbon in TCM diagnosis with syndrome differentiation and the implications of the ICD-11. In the conclusion of their analysis, the authors point out the need for a standardised system with unified criteria for the nomenclature of the general status syndromes and the *zang fu* (臟腑) syndromes with the indication of their symptoms and signs, so as to improve the practice of diagnosis, the research and use of the ICD-11 by TCM practitioners.

KEYWORDS: Chinese medicine; TCM diagnosis; Syndrome differentiation; TCM ICD-11.

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INTRODUCTION

Initially, the International Statistical Causes of Diseases (ICD) was a document created to give a standardised nomenclature of causes of death for a number of countries. Since its first revision in 1900, the ICD has expanded its application from a narrow focus on causes of death to a broader scope of causes of illness conditions, and from an emphasis on statistical presentation and analysis to administrative uses such as hospital records indexing and medical billing.[1]

When the World Health Organization (WHO) took over its publication in 1948, the first WHO Centre for Classification of Diseases in London was formed and the ICD has evolved and grown in complexity as a reflection of changes in medical sciences, technology, society, and different applications of the classification, including the divergent classification interests of the statistical and nonstatistical communities. So, the eleventh revision of the International Classification of Diseases (ICD-11) is now the common informational language of diagnosis in different areas of health and the reference for WHO's national health and insurance systems guidelines.

On 25 May 2019, the Member States of the WHO adopted the ICD-11, which came into force on 1 January 2022.[2]

The ICD-11 includes for the first time a supplementary chapter, Chapter 26, which refers to 150 disorders and 196 syndromes that have originally been described in works of traditional Chinese medicine (TCM) which are commonly used in China, Japan, Korea, and all continents of the world.[3]

This landmark work (ICD-11) on TCM is in line with the *WHO Traditional Medicine Strategy: (2014–2023)*, which encourages the Member States to regulate, promote research and integrate traditional medicine practice into their health systems.[4]

The inclusion of TCM in the ICD-11 by the WHO recognises: 1. TCM's contribution to global health care; 2. The current needs of populations regarding TCM.[5]

Currently, TCM is used in 183 countries and regions around the world. According to the WHO, 103 of its Member States have approved the practice of acupuncture and moxibustion, 29 Member States have enacted special statutes on traditional medicine, and 18 Member States have included acupuncture and moxibustion treatment in their health insurance provisions.[6]

In 2016, there were 3,966 TCM hospitals, 452,000 TCM practitioners and 42,528 TCM clinics in China. In the same year, in China, 910 million TCM outpatient consultations and 26,915,000 inpatient treatments were made.[7]

TCM is one of the oldest non-conventional and most widely and uninterruptedly practised traditional medicine systems in the world.[8] Differential diagnosis is the basis for prescribing treatment in TCM's therapeutic modalities. Acupuncture, herbal medicine, *tai chi* (太極) and *chi kung* (氣功) therapy, massage, osteopathy and Chinese dietetics, which are used today throughout the world, have been used in East Asia for over 3,000 years.

Currently, with the specialisation and individualisation of conventional medicine and the impacts of TCM worldwide, there is an increasing interest from international health systems, the practitioners and researchers want to make clear the information and registration of this most determining process of their clinical practice — the differential diagnosis. This interest became visible in the recent update of the ICD-11.

Despite the dominance of conventional medicine in disease treatment today, experiences show that the inclusion of TCM in treatment and healthcare can improve clinical practice outcomes for patients.[9] TCM also includes a coherent system of health promotion and prevention of disease based on the TCM diagnosis which goes beyond the field of health intervention of conventional medicine and encompasses all human

health conditions.

It is important that TCM practitioners and researchers are aware of the challenges involved in this WHO initiative and work together to address them. The Traditional Chinese Medicine School of Lisbon (ESMTC), with 25 years of experience in teaching and applying TCM diagnosis, presents an example to show how this tool can be used in both clinical diagnosis and research in the epidemiology of TCM.

1. ORIGIN OF DIFFERENTIAL DIAGNOSIS

Posthumous Papers of the Shen Residency written by Dr. Zhou Zhi Han in the Ming dynasty (1368–1644 A.D.) and *Yimen Banghe* (《醫門棒喝》Warnings for Doctors) written by Dr. Zhang Nan (章楠) in the Qing dynasty (1644–1911 A.D.) are the first two works that use the term 'treatment discussion' based on the global differentiation of syndromes.[10]

However, according to these authors, the system of syndrome differentiation has been well established since very early years in the history of traditional Chinese medicine diagnosis. It has its beginning in the classic *Huang Di Nei Jing* (《黃帝內經》Yellow Emperor's Inner Canon) and the writings of Dr. Zhang Zhongjing (張仲景), and has been developed throughout different dynasties until the present day. The main milestones, according to these authors, are as follows:[11]

- In the Eastern Zhou dynasty (770–221 B.C.), *Huang Di Nei Jing* established the foundations of the theoretical system of syndrome differentiation.
- In the Eastern Han dynasty (25–220 A.D.), Zhang Zhongjing established the syndrome differentiation system in the classics *Shanghan Lun* (《傷寒論》Treatise on Febrile Diseases Caused by Cold) and *Jin Gui Yao Lue* (《金匱要略》Essential Prescriptions from the Golden Cabinet).
- From the Jin and Tang dynasties to the Northern Song dynasty (265–1127 A.D.), the syndrome differentiation according to *zang fu* theory was developed. During the Song, Jin and Yuan dynasties (960–1368 A.D.), the pulse analysis associated with syndrome differentiation was widely and deeply developed.
- In the Ming and Qing dynasties (1368–1911 A.D.), the syndrome differentiation according to the eight principles was perfected, and the syndrome differentiation based on the theory of the four layers *wei* (衛), *qi* (氣), *ying* (營) and *xue* (血) and the theory of the three burners was established.

Since the 1950s, the treatment based on the differentiation of syndromes has definitely been established as the unique concept, the regulation and the basic characteristic of the diagnosis and treatment of TCM disorders.[12]

In Portugal, according to Article 3 of Law 45/2003 of 22 August — Lei do Enquadramento Base das Terapêuticas não Convencionais (Law for the Basic Framework of Non-Conventional Therapies), 'non-conventional therapies' are considered to be those that have a different philosophical basis from that of conventional medicine and apply specific diagnostic and therapeutic procedures.

As said, syndrome differentiation is one of the most important concepts in the practice of TCM which consists of a series of diagnostic procedures. Syndrome differentiation is different from conventional diagnostic methodologies. It is a comprehensive analysis of clinical information obtained by the four main TCM diagnostic procedures: observation, listening, questioning, and palpation that includes pulse analyses.[13] It is used to guide the choice of TCM treatments ranging from acupuncture to herbal formulae, diet, *tui na*, *chi kung* and *tai chi*. Thus, the complete TCM process is known as *bian zheng lun zhi* (辨證論治 disease identification as the basis for determining treatment) — 'treatment based on

syndrome differentiation'. Therefore, a correct TCM syndrome differentiation is the most important principle that guides the prescription of TCM treatments for both health promotion and disease therapy.

Despite its antiquity, TCM differential diagnosis has a high level of theoretical and scientific consistency. In light of this, it is possible to integrate biomedical diagnosis into modern clinical practice.[14]

It has also been shown that TCM differential diagnosis can be an asset for modern clinical and pharmacological research. However, the differential diagnosis of TCM needs the maturation of dialectical cognitive skills that take a long time to learn.[15] Nevertheless, it is necessary to take advantage of its additional values.

2. SYNDROME'S CONCEPT AND CHARACTERISTICS IN TCM — MUTATION AND TRANSFORMATION DYNAMICS

2.1 SYNDROME'S CONCEPT

The term 'syndrome', which derives from the Greek words 'contest', 'affluence' and 'to occur together', refers to a set of signs and symptoms that define the clinical manifestations of one or several diseases or clinical conditions.

The concept of syndrome was proposed by Wang in 1977 to designate the conclusion of the differential diagnosis performed by the four diagnostic methods of TCM under the guidance of its theoretical system.[16] The concept of syndrome encompasses the causal factors of an imbalance or disease, identifies its location and nature, reveals the pathogenesis and developmental trend, and suggests the direction of treatment.[17]

2.2 SYNDROME'S CONCEPT IN TCM

The concept of syndrome in TCM implies:

- Specificity: Different syndromes have different symptoms and signs.
- Transmissibility: In the process of disease and life development, syndromes change according to etiologic and pathogenic changes, and the tendency of the struggle between vital energy and pathogenic factors.
- Inter-relationship: Syndromes do not appear alone, but combine with other syndromes, reflecting the inter-relationship between etiological factors and diseases.
- Appearance: In the process of pathogenetic changes of a disease or imbalance, appear sometimes manifestations that are not consistent with the pathogenesis, but false phenomena.

The concept of syndrome in TCM includes a nomenclature and a structure that can be characterised as follows:

The nomenclature has a set of symptoms and signs for a given syndrome. Until 1987, it varied according to the different schools of TCM. Since 1987, there has been a constant effort to unify and standardise the criteria of the nomenclature and define the symptoms and signs that make up each syndrome.

The structure of TCM syndromes reveals that each syndrome has its own specific manifestations and each syndrome regularly combines three levels of sub-syndromes in its structure.

The first level or general status of a syndrome corresponds to the theory of the eight principles (*yin*/*yang*; hot/cold; internal/external; deficiency/excess), and to the theory of *qi*, blood (*xue*) and organic liquids (*jinye*). The second level includes references to the general status and the organs involved in the disorder: general status syndrome and organ (*zang fu*) syndrome (Fig. 1). In internal pathology, this second level corresponds to the *zang fu* theory; in external pathology, according to the theories of the six levels, the four layers and the three burners (*san jiao* 三焦), it corresponds to the inter-relationship between the general status, the organs, and the external pathogenic factors. The third level concerns the combination of syndromes according to the *zang fu* theory in internal pathology. In external pathology, conforming to its theories, the combination

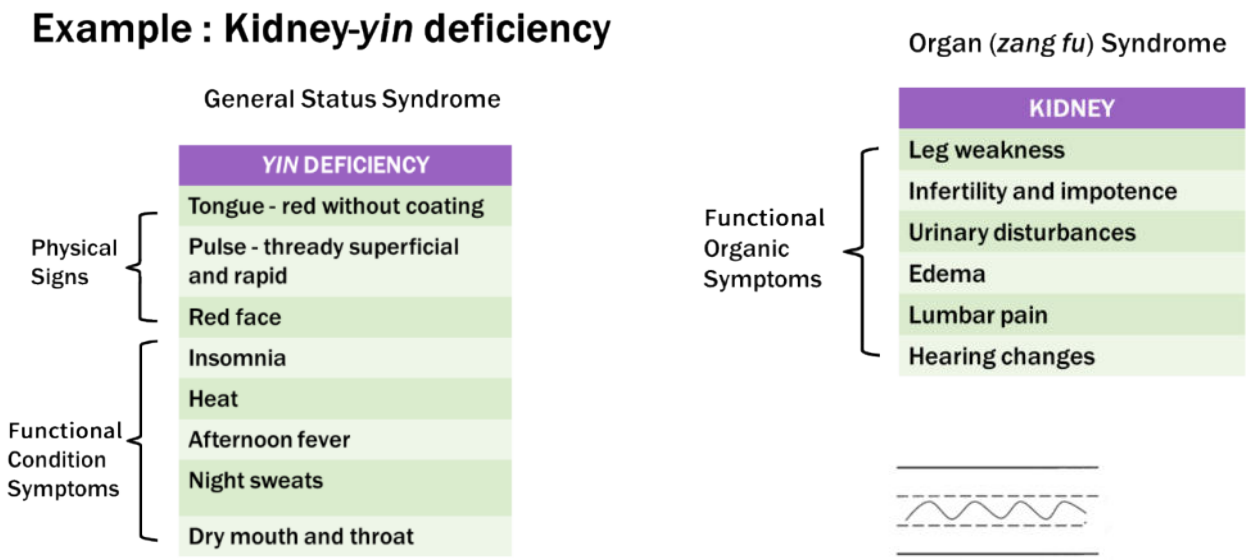

Fig. 1: The general status and organ syndromes in kidney-*yin* deficiency syndrome. Figure created by the authors.

of syndromes is referred to as concurrent (appearing simultaneously in two or more levels — *he bing* 合病) or transmuting (evolving from one to another level, layer or burner — *bing bing* 並病).

2.3 THE FORMATION OF A SYNDROME

The formation of a syndrome is influenced by different interrelated and constantly changing factors identified below:

- The constitution of a person is defined as an integrated, relatively stable and natural individual morphosis. The physiological functions and psychological conditions are formed on the basis of innate and acquired endowments in the life process, determining the susceptibility to some pathogenic factors as well as a tendency towards pathogenic modes.
- The seven primordial emotions, but mainly about how the human being reacts to them and how he feels 'in his skin'.
- The habits of daily life: diet, exercise, addictions and medication.
- The exposure to the six external pathogenic factors (wind, cold, heat, dampness, dryness and summer heat).
- The professional, family, climatic, geographic and cultural environments.

2.4 THE DYNAMIC CHANGE AND TRANSFORMATION OF SYNDROMES

'The dynamic change of a syndrome is its basic characteristic. The stability and standardisation of a syndrome are relative while its totality is eternal and its movement and development are absolute.'[18]

The dynamic change and manifestation of a syndrome are expressed in its occurrence and transformation. We can say that the 'occurrence' is the initial picture obtained after the diagnostic process. It shows the dynamic view of the patient's current imbalance and the context in which it occurs. This initial picture gives us information about the general characteristics — 'gradual', 'simultaneous', 'complex', 'primary', 'secondary', or 'a result of a sudden attack' — of the present syndrome.

'Transformation' is the thing that comes next, the 'movie' that follows. It can be discovered

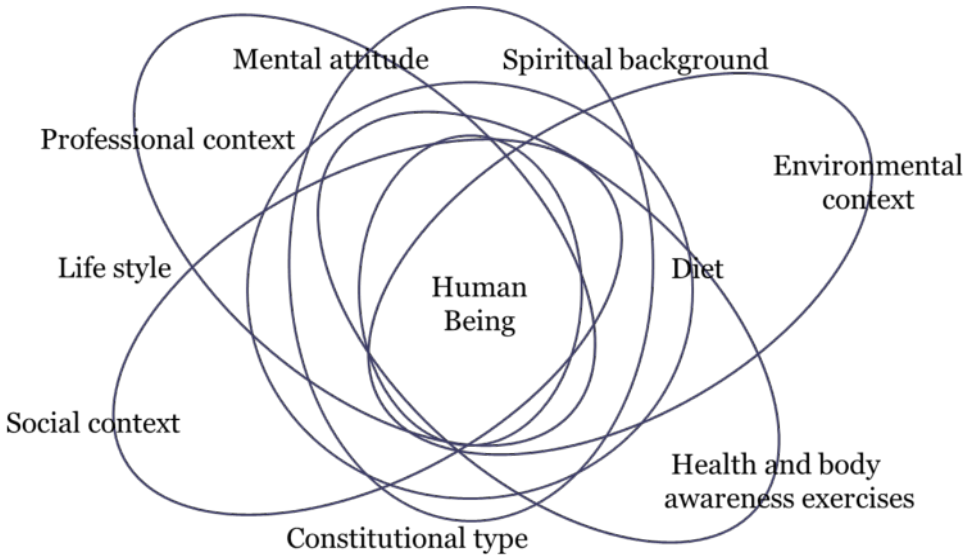

Fig. 2: Integrated and relational human being. Figure created by the authors.

by deepening the diagnostic process and analysing the change related to location, nature and differentiation as stated in different TCM theories and research.

3. TCM CLINICAL PRACTICE AND THE METHODOLOGY OF SYNDROME DIFFERENTIATION

TCM has always regarded clinical practice as its core. TCM comes from clinical practice and returns to the clinic to test its truth.

The syndrome identification and treatment in TCM are consistent with patient-oriented medicine, which means a medicine based on the physiological characteristics of the patient. The mentioned identification and treatment are also consistent with an evidence in TCM based medicine as explained in points 3.1 and 3.2.

Historically, the theoretical system of TCM is an open and remarkable multi-disciplinary system integrating different knowledge of ancient sciences like astronomy, geography, meteorology, philosophy and military. For this reason, TCM's theory is multi-perspective.[19] As the Chinese sayings go, 'the sea admits hundreds of rivers for its capacity to hold (海納百川，有容乃大)', 'the stones of those hills may be used to polish gems (它山之石，可以攻玉)'.[20] In modern times, TCM's theories and its treatments like acupuncture, herbal medicine, *tui na*, dietetics, therapeutic *chi kung* and *tai chi* are studied by multidisciplinary research teams comprising not only Chinese and Western medical experts, but also experts in psychology, psychosomatics, chemistry, physics, mathematics, agronomy, astronomy, and so on.

So TCM clinical practice is open to the patient's context and human progress in different fields, yet it must be based on the evidence of its theoretical system so as to bring the best results and benefits for the patient, as explained in the following paragraphs.

3.1 SYNDROME DIFFERENTIATION

To identify a syndrome, it is fundamental to consider the human being in its contextual relationship (Fig. 2) and know how to effectuate a context-based clinical practice. A context-based clinical practice requires professionals who can listen to their patients

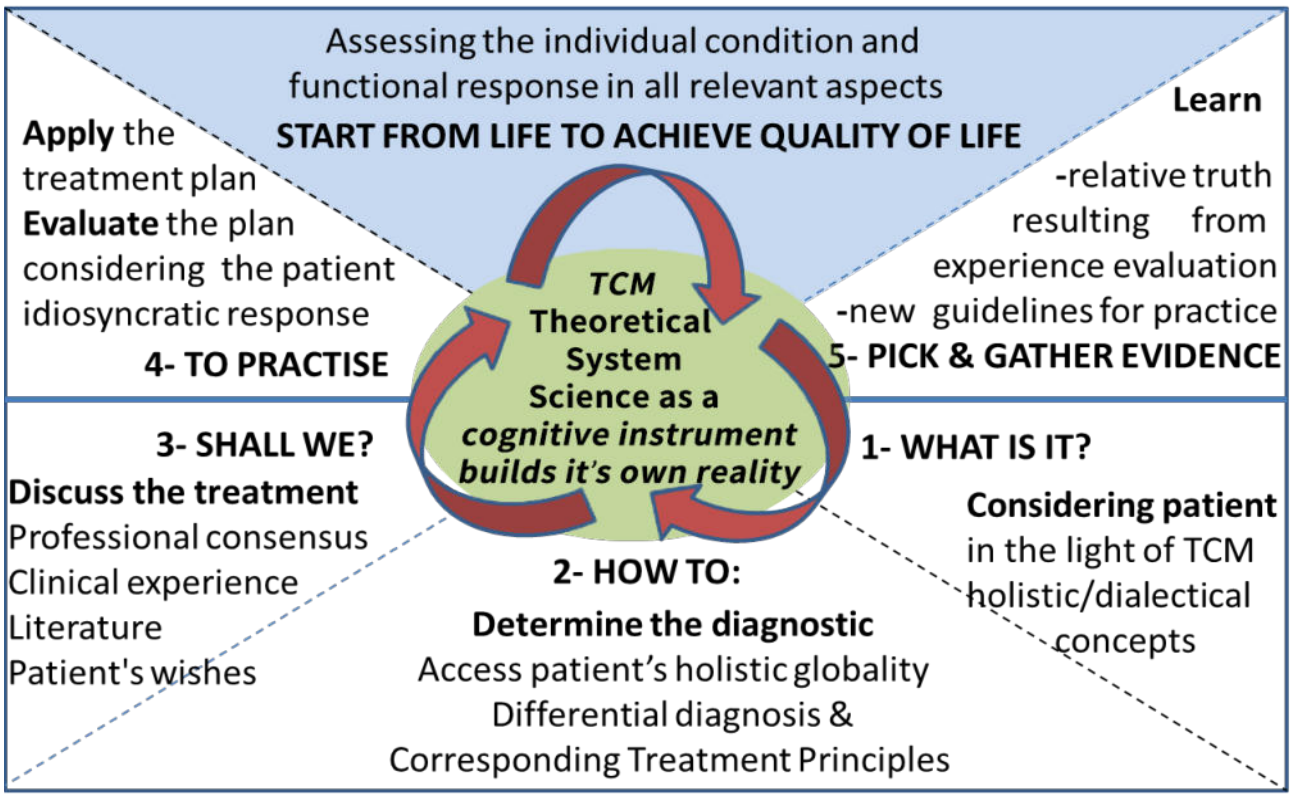

Fig. 3: The structure of evidence in TCM clinical process. *Knowledge & Society through Science Matters & Universities*, 2020, 225.

and welcome uncertainty.[21] This will result in suitable and patient-oriented care, in which evidence has a place and a part of the accountability for the care provided. It is important to note that TCM professionals cannot do this alone, but need to do it with patients and other parties involved.

In another way, clinical evidence in TCM does not concern an absolutely ideal truth, but only a relatively proper truth within a well-structured dialectical paradigm. In this case, the TCM paradigm always refers to a particular clinical context. For this reason, TCM's scientific evidence only aims to provide relatively appropriate truths, always adaptable during treatment evolution, so as to ensure a dynamic and timely adjustment to the clinical context of the patient and, as such, being able to help the current patient to transform his own reality and the individualised pathologic dynamism of his disease.[22]

There is another characteristic of TCM evidence: it is based on a high level of focused awareness and an empathetic relationship with the patient. This means that TCM evidence is mainly related to the context and the patient's reality, which also means a continuous process of evaluation, according to mutual learning and the improvement of the patient's condition achieved together.[23]

3.2 KNOWING HOW TO USE TCM SYNDROME'S CONCEPTS AND METHODS

TCM practitioners must know how to use the methods and theories of TCM — the eight principles; the theory of *qi*, blood and organic liquids; the theory of *zang fu*; the theory of the six meridians; the theory

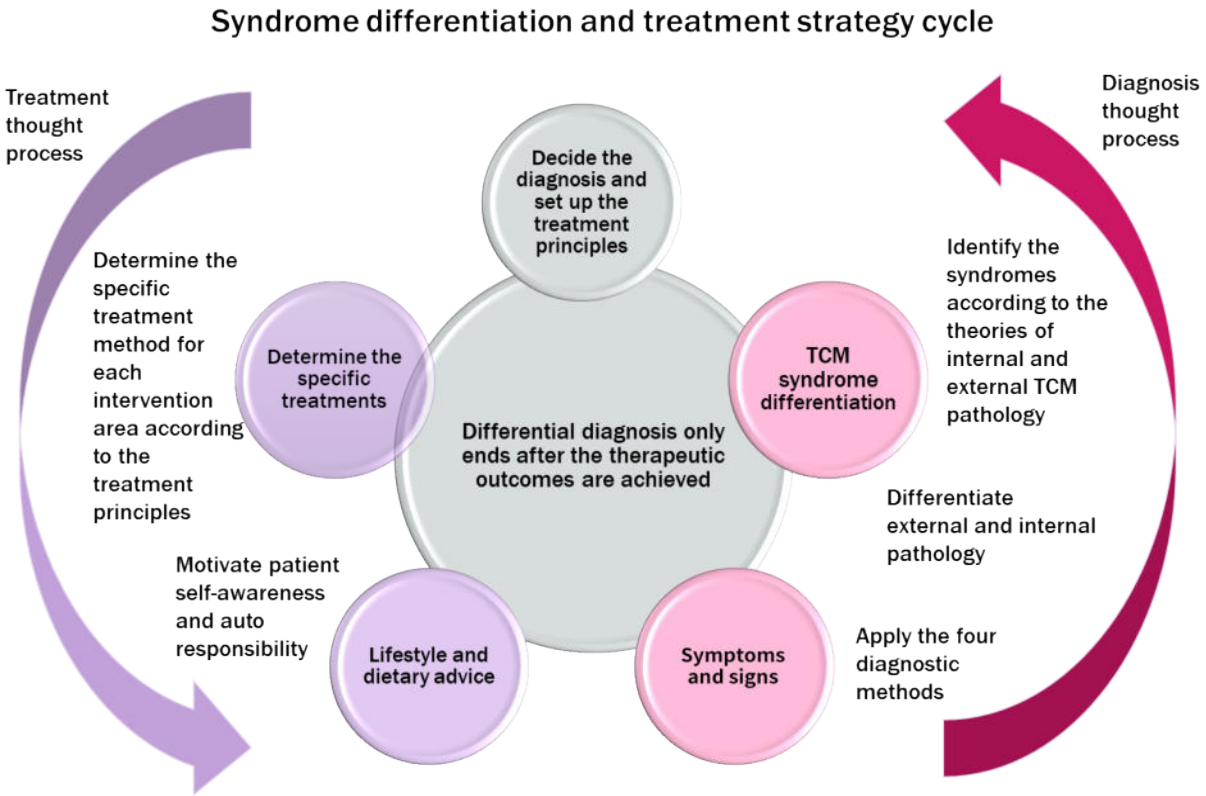

Fig. 4: Syndrome differentiation and treatment strategy cycle. Figure created by the authors.

of the four layers, the theory of the three heaters; the theory of meridians and collaterals; aetiology, and others — in order to evaluate the functional state of the human being in a given moment and context of the patient.

Knowing how to apply is different from just knowing the concepts. There is a huge gap between theories and practice. Training accurate clinical perception (observation, hearing and palpation) and TCM complex thinking skills is a long process that needs self-determined students and clinical teachers ready to welcome them into the heart of their own practice, in a long and meticulous step-by-step process of interaction. Dialectical thinking, namely, not so common in daily life, must be fully developed so as to reveal TCM's specific clinical reality, never still or isolated, but always changing and contextualised.

3.3 THE COURSE OF IDENTIFICATION OF SYNDROMES AND DETERMINATION OF TREATMENT

Differential diagnosis and treatment principles in TCM comprise two different but interrelated specific methods of thinking that will guide the whole diagnostic and therapeutic decision process. This process can be seen as a circle (Fig. 4) consisting of different phases or steps represented in the outer circle. Those steps influence each other and the latter steps start only after the previous therapeutic outcomes have been assessed.

The phase of collecting symptoms and signs that belong to the diagnostic thought process refers to the assessment of clinical signs and symptoms by a correct application of the four diagnostic methods: the visual examination, the smelling and listening

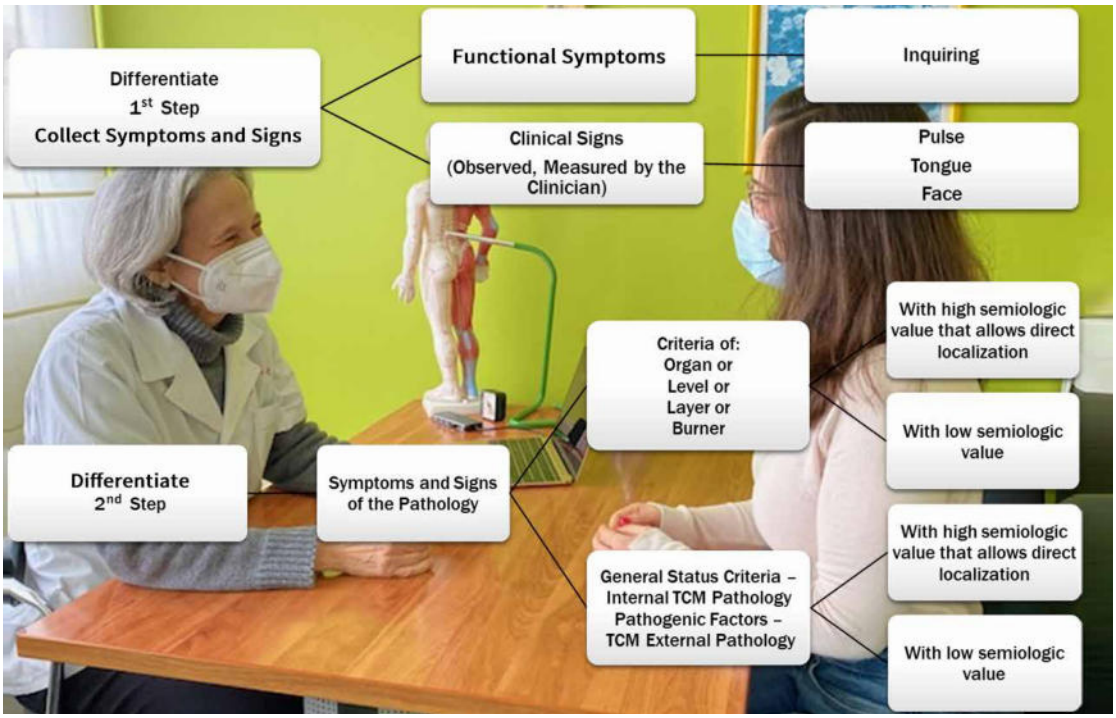

Fig. 5: Step 1 and step 2 of syndrome differentiation (diagnosis thought process). Figure created by the authors.

examination, the inquiring examination, and the palpation examination.[24]

After the examination step, it is important to analyse the fundamental aspects of the signs and symptoms in order to distinguish those in general criteria and those in organ criteria, layers, levels or burners, according to the principles of syndrome identification of TCM external and internal theories (Fig. 5).

To conclude the diagnostic phase, it is important to distinguish the symptoms and signs of the highest semiological value from those of the lowest value with respect to both general condition and organ criteria. It is also essential to take into consideration the intrinsic evolution of a syndrome within one organ, level, layer or burner and its extrinsic evolution (evolution that passes to another organ or level). As a matter of this, in this complex and dynamic development, it is crucial to differentiate primary syndromes from secondary syndromes, superficial syndromes from fundamental syndromes, and chronic syndromes from acute syndromes, in order to design an appropriate therapeutic strategy.

The next phases related to treatment decisions are governed by the treatment thought process. The content of this process is extremely rich since it includes the theories, principles, methods and a compilation of medicinal agents, protocols and systems from different areas of TCM intervention.

The first step begins with the selection of TCM intervention based on the treatment principles that is established by the diagnostic process and the patient's context and motivation. Usually, according to the established treatment prinples, the selection of intervention includes a strategy of combination of the following treatments: acupuncture, herbal medicine, *tui na* and therapeutic *tai chi* and *chi kung*. For example, in a case of liver *qi* depression and liver blood deficiency accompanying by muscular

pain and cold limbs, we can regulate the liver *qi* depression with acupuncture, tonify the liver blood with herbal medicine, move *qi* and blood and regulate *jing luo* (經絡) with *tui na*.

The second step is the selection of treatment methods within a specific area. If it is in the area of herbal medicine, the selection should include a formula, patented or new, with its dose frequency and administration plan according to the principles of treatment.

The third step has to do with daily life and dietary advice. Based on the verified needs in the light of the diagnosis and the general determined therapeutic principles, it is important to give the patients guidelines on their lifestyle, exercise and diet to enable them not only to improve the treatment effects, but also to prevent relapses or worsening of the condition observed. It is also vital to give the patient a self-awareness of his health and make him autonomous in the direction of a healthy lifestyle according to his constitution and life context.

Syndrome differentiation finishes only when the first results of treatment are assessed. The process of syndrome differentiation is a gradual understanding of the disease and health condition of the patient and his reaction to it.

4. TRADITIONAL CHINESE MEDICINE SCHOOL OF LISBON'S EXPERIENCE IN TCM SYNDROME DIFFERENTIATION DIAGNOSIS AND THE ICD-11'S IMPLICATIONS

In order to get access to the common therapeutic principles that direct clinical interventions, the primary research goals in TCM clinical diagnosis aim to attain a plateau of theoretical patient description with clinical relevance. In which direction should we conduct the interrogation and data collection in general? Towards the nearest, most accessible and comprehensive zone of clinically relevant diagnostic formulation.

This zone corresponds to the first level of combination of the most basic concepts of traditional Chinese medicine and naturally generates most of the aforementioned basic syndromes, which thus assume a status of theoretical priority in diagnosis, since these syndromes are antecedents in the logical-deductive chain that leads from the most general and abstract concepts to the first and basic clinically relevant syndromes.

The first group of basic concepts are those included in the 'eight diagnostic rules' (*yin*/*yang*; hot/cold; internal/external and deficiency/excess). The pair 'internal/external' is used to define two types of syndromes which correspond to different sub-areas of TCM theory, with each of them evoked in specific clinical conditions: those related to the internal (lifestyle) or external (environmental) factors in the etiopathogenetic origin of the syndrome in their presence.

The present article aims to focuse on internal syndromes and its clinical and theoretical environments. After the TCM internal pathology has been recognised, the pair 'emptiness/fullness' becomes the key to the combination of basic concepts in next level — this pair of contraries is applied to '*yin*/*yang*' and to the three constituents present in every part of human body that have direct systemic impacts: *qi* (the dynamic energy), blood and body fluids. Not every possible combination among these concepts is relevant to clinical theories of internal pathology. Emptiness is applied to *yin*, *yang*, *qi*, and blood; fullness is applied to body fluids and a special condition of *qi* or blood called stagnation; hot or cold comes from the first level of concepts (the eight rules) and joins the combination of concepts in this level. Here we have the first-level clinically relevant syndromes, related to the referred general status criteria, designated by some as general syndromes.

The next level is the combination of the previously relevant combinations with the five organs and viscera, whose imbalances are always related to one or more general syndromes, showing the intrinsic systemic orientation of TCM. Once the symptoms and signs of organ/viscera imbalance are diagnosed, a

complete picture of basic syndromes can be attained: internal or external, general status syndrome or organ/viscera syndrome with their specific signs and symptoms. In a unified and coherent vision, currently, we just call syndrome. This level connects directly with the concepts used to define TCM's therapeutic principles and applicable strategies, and it is critical for phytotherapy.

When we arrive at this point, it becomes possible to prescribe suitable acupuncture, *tui na*, phytotherapy or TCM diet, etc. However, there is still a further step which is related to the assessment of the patient's idiosyncrasies within his syndrome's framework. There are two options to deal with these particularities. One is to take them into consideration for the treatment strategy without changing the syndrome's name. The other one is to find a more precise syndrome designation, usually by dividing one basic syndrome into different sub-types or by combining different basic syndromes present in the patient's body under one unique designation. On one hand, this incursion out of the basic syndromes allows more accurate syndrome designations. On the other hand, it creates a centrifugal cloud of designations that is difficult to master, adding unnecessary complexity and harming communication between different schools and orientations within TCM.

From our point of view, it is necessary to refocus the taxonomic classification of syndromes on clinical reality, specifically on the basic concepts and syndromes that are critical for moving from diagnosis to therapeutic principles.

Therefore, it would be desirable to have a classification that does not start, academically, with syndromes that represent all possible combinations of the general concepts, because some of them are inapplicable for guiding clinical practice. Syndromes that are considered to be clinically operational in the ICD-11 should serve as the classification's focal point and guide relevant research: they come more directly from the clinically relevant combinations of basic concepts in internal diagnosis (eight rules of diagnosis, *yin*, *yang*, *qi*, blood, organic fluids, organs and viscera); they enable the generation of other syndromes by allowing the division of those syndromes into more specific syndromes or by allowing the aggregation of those syndromes into compound syndromes; they are constantly present in clinical reality and conceptually suitable to connect to common therapeutic principles.

Moreover, this taxonomy could also be the guidelines for the diagnostic investigation of each patient, because the investigation has the priority to clarify the patient's position within the framework of these basic syndromes. From this point onward, if necessary, we would move on to syndromes with their own designations, or to composite syndromes, aggregating two or more basic syndromes under a single designation.

As a result, the ICD-11's exhaustive presentation of all syndromes that might result from the combination of fundamental Chinese medicinal concepts has the drawback of introducing a significant number of syndromes that are neither present nor relevant in clinical practice into the classification, nor allow the linkage between the diagnosis and normal therapeutic principles, namely those contained in the herbal formulae of traditional Chinese medicine. The 'Occam's razor' is an applicable concept to the construction and formulation of theories in general. It was expressed by the mediaeval thinker through the Latin expression '*inutilia truncat*' (eliminate what is useless). In our opinion, it also applies to the TCM part of the ICD-11.

With the focus on fundamental syndromes with clinical significance, the classification itself should be able to suggest the key components in the typical TCM diagnostic roadmap: 1. Make a diagnosis with the application of the eight rules, ascertain if the situation is based on an internal or external nature and confirm

if there is a deficiency or excess of the basic factors — *yin*, *yang*, *qi*, blood and body fluids, thus being able to define what we call general status syndromes; 2. Explore the signs and symptoms of the five organs to ascertain which are unbalanced in conjunction with the general imbalance diagnosed in the previous procedure; 3. Verify if viscera is involved in the designation of the basic syndromes under TCM's convention; 4. Establish which basic syndrome(s) is/are present; 5. Verify if there are specific characteristics that justify the use of composite or analytic designations.

In order to compare research results and create a standardised guideline for each syndrome's main symptoms, it is very urgent to define the symptoms that have the highest semiologic values (the greatest statistical probability) for each basic syndrome.

In fact, only a classification dedicated to the clinically relevant basic syndromes and the specification of their reference symptoms can completely eliminate the possibilities of error or choices by mere chance within the ICD-11.

Currently, the best available bases (with greater reliability and values) for this classification of syndromes are the various studies of standardisation of syndromes that are carried out by groups of universities and hospitals in the People's Republic of China. The reason is that these studies are based on extensive statistical research.

For a better use of the ICD-11 in the diagnostic process, it is important to mention the development plan for standardisation of TCM (2011–2020) as pointed out by Wang and others in 2016.[25] The development plan has already been published and could be transformed and explained at an international level. It could upgrade and uniformise the criteria followed by the Traditional Chinese Medicine School of Lisbon and bring orderly development for TCM standardisation around the world. Table 1 gives an example of the reorganisation of the current ICD-11 syndrome divisions according to their levels.

From 1994 until the present, the ESMTC has developed in its clinic centre a diagnostic teaching methodology based on specific criteria for TCM syndrome differentiation's standardisation created by a group of Chinese universities and transmitted by Nguyen and others in Madrid in 1988.[26]

This system presents 33 basic syndromes, in which 15 are for deficient conditions and 18 are for excessive conditions. In addition, this system has a consistent structure and nomenclature that include specific and distinct signs and symptoms for each syndrome and a clear criterion for distinguishing higher and lower semiological symptoms and signs.

Note that only some of the possible combinations between general status syndromes and organ/viscera syndromes are considered in this system, as shown in Table 2. According to TCM's basic theories, the specific functions of organs and viscera create special links between each one of them and different factors that define the general status. The result is that the imbalance of an organ usually connects to specific general status imbalances, and vice versa, as can be seen in common TCM clinical practice.

The diagnosis of these basic syndromes allowed the school clinic to recognise and diagnose a large number of other syndromes that are derived from these main ones. This prolonged and uninterrupted clinical experience, accompanied by constant adjustment from theory to practice and from practice to theory, has allowed the ESMTC to apply, for over 25 years, an efficient and complete diagnostic system based on 33 well-defined basic deficiency and excess syndromes from the 35 referred (Table 2). As a consequence of this methodology, it has been possible for hundreds of Portuguese TCM specialists to utilise a clear syndrome differentiation nomenclature in clinical trials and compare the results from different research projects so as to obtain better communication and experiential exchanges.

With this methodology, a teacher of the ESMTC

Table 1: Example of reorganisation of the ICD-11 syndrome divisions according to their levels

ICD-11-Traditional Medicine Patterns (TM1) — Organ System Patterns (TM1) ***Liver SF 50–59* and *SF 5A–5Z***		
1st Level General Status Syndromes	2nd Level Basic Syndromes (TM1)	3rd Level Combined Syndromes and Subtype Syndromes
Zang fu		
Deficiency Syndromes	**Commonly seen**	
Yin deficiency	SF50 Liver *yin* deficiency	SF5H Liver and kidney *yin* deficiency
Blood deficiency	SF54 Liver blood deficiency	SF5J Disharmony of liver and spleen systems
		SF5K Disharmony of liver and stomach systems
	Not commonly seen	
Qi deficiency	SF53 Liver *qi* deficiency	
Yang deficiency	SF5D Gallbladder *qi* deficiency	
	SF51 Liver *yang* deficiency	
		SF56 Liver wind stirring the interior
Excess Syndromes	**Commonly seen**	SF59 Liver heat stirring wind
Qi stagnation	SF57 Liver *qi* stagnation	SF5L Liver fire invading the stomach system
Fire	SF58 Liver fire flaming upward	SF5M Liver fire invading the lung system
Phglegm-heat		SF5A Liver-gallbladder dampness-heat
Excess heat	SF5F Gallbladder heat	SF5E Gallbladder depression with phlegm harassment
	Not so commonly seen	
Excess cold	SF5G Gallbladder cold	
Jing luo	SF5C Liver meridian cold stagnation	
	SF5B Liver meridian dampness-heat	

Table created by the authors.

wrote a master's thesis titled *Epidemiological Profile of Demand of Users of Traditional Chinese Medicine in the Greater Lisbon Region*.[27] This thesis of the Nova University of Lisbon, based on 478 cases of the clinical centre of the ESMTC, could present a differentiation of syndromes among the 33 referred basic syndromes and classify them in the ICD-11. This thesis could also correlate the syndromes described in the chapter of Traditional Medicine with the chapters about Western medicinal concepts (Chapters 1 to 25) in the ICD-11 advocated by the WHO in 2019.[28]

CONCLUSION

The emergence of new technologies and the transition to the digital age have led to the development of various digital platforms that use TCM diseases' designations and traditional TCM syndromes from the ICD-11 for medical reporting.

Table 2: General status and 33 basic TCM syndromes out of the 35 adapted from Nguyen and others in 1988

TCM General Status Syndromes	TCM Basic Syndromes	
Deficiency Syndromes	**Deficiency Syndromes**	**Excess Syndromes**
		Blood stasis in the Heart
Qi deficiency	Heart *Qi* deficiency	*Qi* stagnation in the Liver
Yang deficiency	Lung *Qi* deficiency	Food stasis in the Stomach
Blood deficiency	Spleen *Qi* deficiency	Excess Heat in the Heart
Yin deficiency	Heart *Yang* deficiency	Excess Heat in the Lung
	Spleen *Yang* deficiency	Excess Heat (Fire) in the Liver
	Kidney *Yang* deficiency	Excess Heat in the Stomach
Excess Syndromes	Small Intestine *Yang* deficiency	Excess Heat in the Blood
	Heart Blood deficiency	Excess Cold in the Lung
Qi stagnation	Liver Blood deficiency	Excess Cold in the Stomach
Blood stagnation	Heart *Yin* deficiency	Dampness in the Spleen
Food stagnation	Lung *Yin* deficiency	Phlegm in the Lung
Excess heat	Liver *Yin* deficiency	Phlegm in the Heart
Excess cold	Stomach *Yin* deficiency	Phlegm-Heat in the Lung
Damp-phlegm	Kidney *Yin* deficiency	Phlegm-Heat in the Gallblader
Damp-phlegm-heat	Large Intestine *Yin* deficiency	Dampness-Heat in the Small Intestine
		Dampness-Heat in the Large Intestine
		Dampness-Heat in the Bladder

Table created by the authors.

In this article, after presenting the most important bases of the diagnostic process that leads to syndrome differentiation and coinsidering the use of the ICD-11 for proper recording, the following measures are suggested:

- The development of an internationally standardised criteria system for the nomenclature and the definition of the general status syndromes and *zang fu* syndromes and their respective symptoms and signs.
- The improvement of TCM diagnostic practice based on this standardisation.
- The presentation of the ICD-11 patterns according to traditional medicinal standards, using a dynamic taxonomy that can support TCM's own differential diagnosis and teaching process.

These measures can also serve to standardise the diagnostic procedure for TCM pattern differentiation

in research. Moreover, it could also facilitate the standardisation between TCM differential diagnosis and Western systemic pathologies defined in the ICD-11. All these standardisation should start in clinical practice and return to it, using the means and methods of validation being considered the most appropriate. RC

NOTES

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