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External evaluation of university quality in Chile: an overview

Daniel A. López

Instituto Interuniversitario de Investigación Educativa (IESED-CHILE), Universidad de Los Lagos, Santiago, Chile

Oscar Espinoza

Facultad de Educación y Humanidades, Universidad de Tarapacá, Arica, Chile

María J. Rojas

Facultad de Ciencias de la Educación and Postdoctoral Fellow, Instituto Interuniversitario de Investigación Educativa (IESED-Chile), Santiago, Chile and Facultad de Ciencias de la Educación, Universidad de Playa Ancha, Valparaíso, Chile, and

Mirta Crovetto

Facultad de Ciencias de la Salud/Centro de Estudios Avanzados, Universidad de Playa Ancha, Valparaíso, Chile

Abstract

Purpose – This study aims to review processes of accreditation for Chilean Universities. Along with cataloguing evolutionary milestones, the study analyses effects at the institutional and program levels.

Design/methodology/approach – The study adopts a meta-evaluative approach and is based on secondary information sources, including both specialised publications and national databases, regarding the expansion of institutions, programs and enrolment, as well as the results of accreditation processes.

Findings – University quality assurance reflects developments in economic policies, and supply and demand. Progressive consolidation of the national system has had positive effects on the management and development of universities, but the implementation of quality assurance has brought some problems. A traditional classification of universities into customary categories is predictive of the results of accreditation. The variable of administrative compliance is more important than a culture of quality in explaining the results of institutional and program accreditation.

Originality/value – This review identifies advances, limitations and challenges in the improvement and assurance of quality of Chilean Universities and their programs. This is an unprecedented metanalysis of studies concerning the evolution of accreditation processes and will inform future practice.

Keywords Quality assurance, Chilean universities, External evaluation, Accreditation

Paper type Literature review

Introduction

External quality assurance (EQA) in Chile reflects international trends in adjusting regulatory processes, most of all institutional and program accreditation (Beerkens,

2018; Westerheijden *et al.*, 2007; Stensaker, 2018). While the earliest forms of EQA, external accreditation, were established in the USA over a century ago (Ratcliffe, 1996), the massive build-up of EQA systems was introduced from the mid-1980s, and a number of countries are continuing to establish such systems even today (Dill and Beerkens, 2010).

In the accreditation of specific disciplinary programs in Latin America, the US-based Accreditation Board for Engineering and Technology (ABET) has become the most influential agency. ABET dates back to 1932 and is recognised by the Council for Higher Education in its home country. It currently accredits 3,700 programs in 750 institutions across 30 countries, including in Latin America five republics, where it accredits a total of 107 programs within private and public sector institutions (ABET, 2016).

In recent decades, the improvement of Chilean higher education and assurance of its quality have become increasingly important in view of the marked growth of institutions, and of undergraduate and graduate programs (Letelier and Carrasco, 2004; OECD, 2012; Bernasconi, 2007; Espinoza and González, 2018). The consolidation of quality assurance has sought to provide society with guarantees of compliance with minimum standards across the system and a competent graduate workforce (Espinoza and González, 2011, 2013, 2018; Lemaitre, 2015).

Over time, submission to regulatory quality assurance processes (particularly external evaluation) has been established as a necessary condition for accessing public funds, both for the operation and development of Higher Education Institutions (HEIs) and for students themselves. Accreditation processes for institutions and programs affect different areas, including management, financial sustainability, institutional analysis and participation in and technical execution of strategic and operational planning, as well as for dedicated internal quality assurance models and systems run by specialised units. Quality assurance reforms also see the redefinition of mission and vision, formulation and implementation of sectoral policies and the generation of integrated information systems providing relevant and timely information for decision-making. Both management and academic activities benefited from insights emerging from external evaluation into changing demands on human, physical and information resources (Lemaitre, 2005; Zapata and Tejeda, 2009; Scharager and Aravena, 2010; Espinoza and González, 2011; CINDA, 2011; Lemaitre *et al.*, 2012; Cancino and Schmaal, 2014; López *et al.*, 2015; Rojas and López, 2016; López *et al.*, 2019a; Duque, 2021). Ongoing problems include sensitivity to institutional diversity, the objectivity of processes and determinations, alignment of results with legal and economic definitions and administrative compliance's working against the development of cultures of quality (Espinoza and González, 2019; Barroilhet, 2019; Barroilhet *et al.*, 2021). Regulatory adjustments have followed, reflecting vibrant debates over the organisation and deployment of standards, among other issues, leading eventually to the enactment and implementation of new laws.

Chilean quality assurance processes and regulation have been the subject to study (Bernasconi *et al.*, 2017; Bernasconi *et al.*, 2020), and now the opportunity presents itself for a metanalysis of such studies that takes into account the specifics of different processes, interpretations and consequences.

The Chilean case is particularly illustrative of the gradual development of external evaluation, with institutional accreditation processes launched in the 1990s on a voluntary and experimental basis (CNAP, 2007). Uptake by HEIs would far exceed expectations, which spurred the formalisation of a National Quality Assurance System (SINAC) for universities, professional institutes (*Institutos Profesionales* [IPs]) and technical training centres (*Centros de Formación Técnica* [CFTs]) in two compulsory areas (undergraduate teaching and

institutional management) and three elective areas (research, postgraduate teaching and outreach). The accreditation of training institutions and their programs has witnessed the development of a mixed model of self-evaluation and external evaluation (Lemaitre, 2004). Recent regulatory changes, together with the now-obligatory nature of accreditation for HEIs, establish the following dimensions to be evaluated: teaching and learning outcomes, strategic management and institutional resources, internal quality assurance and links with the media. Conceptually, quality is pursued both internally (to achieve what is offered) and externally (relevance to social requirements). Recently, an orientation towards the search for excellence has been incorporated, along with acknowledgement of the diversity of educational projects, inclusivity and class participation, among other principles and values (Congreso Nacional de Chile, 2018). Quality assurance in higher education can be defined as the fulfilment of set of dimensions and criteria in terms of achievements, how institutions run and development (Espinoza and González, 2019).

This review will proceed to characterise the quality assurance system for higher education in Chile and its evolution over the past 30 years, in terms of institutional and program accreditation outcomes, drawing primarily on data reported in the specialised literature. This review seeks evidence as to the effects of accreditation as a regulatory measure amidst a boom in size of institutions and range of undergraduate programs and contemplating the association between results and the operative typology of institutions.

Methodology

This analysis of the Chilean higher education quality assurance system begins with a descriptive review of relevant working documents. A general characterisation is of procedures and accreditation results exposes patterns and variables with regard to institutional and program accreditation. The general characterisation lays out the main milestones in the development of Chilean quality assurance, including the establishment of various official bodies:

- The National Accreditation Commission (CNA).
- The National Education Council, an organ specifically responsible for the licencing of non-autonomous universities and for appeals over accreditation decisions, among other matters.
- The Ministry of Education's Higher Education Information System.

The further analysis of patterns and trends in institutional and program evaluation draws on the meta evaluation and qualitative metanalysis of academic literature. Such evaluation is extrinsic in nature, focussing on the results reported in studies published in the past 40 years (Harnar et al., 2020). This analytical approach has been used to examine different processes in higher education quality assurance (Bormann et al., 2006; Peer and Penker, 2014). In the case of institutional accreditation, the role of university rankings stands out in the literature, given that it is increasingly linked to the provision of public funds (López et al., 2019a). Concerning the accreditation of undergraduate programs, Nutrition and Dietetics was chosen for analysis, as it is the only case where there is evidence, both qualitative and quantitative, across a significant number of programmes ($n = 20$), regarding relationships between accreditation results and internal variables. The studies that have focused on other undergraduate programs refer to the consequences of the accreditation results of a program or a limited number of them, but without establishing patterns and relationships with internal and external variables.

Accreditation of higher education in Chile: a systemic perspective
Over the past 30 years, the quality assurance of higher education in Chile has been determined by commercial criteria that have been progressively institutionalised. This was evidenced at the beginning of past decade, when it was revealed that some members sitting on the CNA had unduly favoured certain universities in accreditation decision in exchange for elicit payments (Espinoza and González, 2013). Meanwhile the system has experienced inorganic growth, in the sense of a weakly steered system whose activities do not necessarily correspond to the intent of formulated regulations, both at the level of institutions and of degree courses. Initially, pilot accreditation bodies were set up, with certification processes progressing to permanent legal recognition (CNAP, 2007; Espinoza and González, 2013; Jerez and Blanco, 2018; Espinoza and González, 2019). The main milestones that have marked the evolution of the quality assurance system in Chilean higher education are outlined below.

The Constitutional Organic Law on Education (its Spanish abbreviation is LOCE) passed in 1990. LOCE established the creation of the Higher Education Council, an autonomous body representing various sectors of society and responsible for overseeing the tertiary system (Congreso Nacional de Chile, 1990).

The year 1999 saw the creation of the National Commission for Undergraduate Accreditation and the National Commission for Postgraduate Accreditation (CONAP), advisory bodies whose purpose was to draw up proposals for the creation of the entities that would together develop accreditation processes at institutional level (CNAP, 2003).

The SINAC, announced in 2002, would seek to promote quality control through the application of supervisory mechanisms, ensuring compliance with minimum conditions such as the promotion of quality through the licensing of new institutions and the uptake of institutional evaluation, as well as to stimulate the accreditation of degree programs and postgraduate programs (Espinoza and González, 2018). The project would only be approved, with important modifications, in 2006 through Quality Assurance Law No. 20.129. At that stage, the quality assurance system consisted of the CNA, the National Education Council (CNED), and the Undersecretariat of Higher Education. The CNA had power to certify private agencies which then would accredit undergraduate degrees and postgraduate programs (Congreso Nacional de Chile, 2006; Rodríguez, 2009).

In 2018, the 2006 legislation was replaced by Higher Education Law No. 21.091, which has sought to reform the higher education system and the quality assurance regime. This heralded various innovations, including that accreditation be mandatory both for HEIs and, separately, for teaching, medicine and dentistry degrees. For other undergraduate programs, accreditation is optional. Institutional accreditation has been made obligatory and now includes the evaluation of a targeted sample of undergraduate programs. Non-accredited institutions would not be able to offer new degrees or programs, open new campuses, increase student places or indeed enrol new students. The law also requires standards for existing criteria and dimensions, for the pursuit of stated purposes of education and knowledge generation, and for ensuring the quality of processes and outcomes (Congreso Nacional de Chile, 2018).

Outcomes of the implementation of the quality assurance system
Institutional level. Since the implementation of the institutional accreditation process, the number of HEIs has decreased. Accreditation has been an important factor in the closure of more than 230 HEIs. However, also increased has the number of autonomous institutions (i.e. those that have completed initial institutional accreditation processes; this is not synonymous with current accredited status). Currently, all operational universities are

autonomous, while 30 years ago only 60% of them were. Of the 150 current HEIs, 84% are autonomous.

There are differences according to the type of institution in the length in years of accreditation granted (which means the less frequent presence of external evaluators, and is effectively understood as a marker of quality). Only 22% of the 59 universities are not accredited, while far higher are the proportions of non-accredited IPs and CFTs. Among the universities, 17% have the maximum possible accreditation length.

Educational program level. Higher education has spread throughout the country, with the opening of campuses and non-traditional programs with special modalities such as distance and blended programs. Over the 2005–2016 period, the number of university programs grewBy 18.8%, while enrolment increased by 71.1%. In the subsequent 5 years, programs decreased by 12.9%, but enrolment increased by 31.2% (Espinoza and González, 2011; CNED, 2020), with falling applications and participation in the university selection test (DEMRE, 2021). Accredited undergraduate programs have also exhibited sustained growth in recent years. An important role in this period was played by the private agencies accrediting undergraduate and master's degree programs, ceasing in 2018, without any retrospective evaluation of their services (Zapata and Clasing, 2016). Out of more than 700,000 university students, currently 14.1% of higher education enrolment is found in university programs with the maximum accreditation of 7 years and only 3.6% are in non-accredited programs (CNED, 2020). Despite the fact that accreditation is voluntary for most university programs, the increase of accredited university programs has been noteworthy, growing 1.8 times from 2016 to 2020 and more than 9 times since 2005 [Servicio de Información de Educación Superior (SIES), 2020].

Postgraduate programs are taught only by universities and doctoral programs must be accredited by the CNA. In 2000, of the 75 doctoral programs existing in the country, 66 underwent accreditation processes, with 36 approved. Of those doctorates accredited, 76% were approved for two years and only 13% were approved for six years. Six years later, in 2006, CONAP had accredited a total of 174 graduate programs (Espinoza and González, 2011; Munita and Reyes, 2012). Here again, the accreditation of programs has been a requisite for accessing state grants, which has encouraged participation (*López et al.*, 2018a).

There is a growing supply of postgraduate degrees, both master's and doctoral. From 2008 to 2020, doctorates increased 2.5 times and master's degrees 3.5 times [CNA, 2016; Servicio de Información de Educación Superior (SIES), 2020]. Such a situation can be tied to the projected technological and professional development needs of the country, although in practice there are problems in finding appropriate jobs for better qualified individuals (Mendoza *et al.*, 2014). Differences in accreditation levels play out according to type of graduate program. Currently, of the 1,898 master's programs, 20% are accredited, while in the case of doctoral programs, 64% are now accredited. Differences in university type account for an important part of these trends. The rump of "new private" universities created after the 1981 reform sees only 28% of their postgraduate degrees accredited in 2020, while those represented in the Council of Rectors of Chilean Universities (CRUCH, these comprising pre-1981 "traditional" universities, others derived from or created with the assistance of those older universities, plus three new privates recently welcomed) have 69% [Servicio de Información de Educación Superior (SIES), 2020]. Meta-evaluative studies of doctoral degrees correlate highly with successful accreditation, but the years of accreditation seems more random and subjectively determined, with compliance with processes apparently more rewarded than actual impacts (González *et al.*, 2018). Accreditation resolutions make reference to limitations in the experience and productivity of

professors, as well as weak application of quality assurance policies. There is also little inter-institutional collaboration. Those doctoral programs run by consortiums of several universities achieve longer accreditation times, but constitute only about 6% of the accredited doctoral programs (López *et al.*, 2018a).

Institutional accreditation: the classification of universities

The Chilean university system is heterogeneous in terms of the characteristics such as historical origin, trajectory, size, legal character, control and funding mechanisms, governance and mission. Nevertheless, the procedures for university quality assurance are broadly common, which might in time complicate the fulfilment of differentiated purposes and missions (Ziegele, 2013). Additionally, in assigning public funds and control procedures, the longstanding dichotomy between "traditional" and "new private" universities has continued to be observed, which has led to criticism and various alternative proposals associated with quality assurance and the generation of public goods (Reyes and Rosso, 2013; Lavados *et al.*, 2016; López *et al.*, 2019a). As such, understanding the operation of this typology is crucial in analysing the results and effects of external evaluation and accreditation (López *et al.*, 2019a, 2019b).

Until 1981, there were eight universities in Chile, two being state universities, and all members of CRUCH. The 1980 Constitution allowed the creation of new private universities (which were excluded from consideration for inclusion within CRUCH until 2018) and, at the same period, regional and specialised branches of some traditional universities were transformed into autonomous universities. Between 1981 and 2021, the Chilean university system increased 6.7 times in the number of universities and 6 times in student headcount (CNED, 2021). As a consequence, we observe the longstanding taxonomy: a traditional sector of state universities and older private universities, and new private universities created since 1981. Of the universities derived from the original traditional institutions, all but one are also part of the traditional sector. Until 2015, there were 25 institutions (16 state and 9 traditional private) with 2 new state institutions created in 2015 and then the aforementioned 3 formerly new private universities being recently admitted.

Over the 30 years from 1990, enrolment in state universities grew 3 times, those in traditional private universities 4.6 times and new private universities 16.3 times [Servicio de Información de Educación Superior (SIES), 2020]. State universities accounted for 50% of enrolment in 1990, 41% in 2000 and around 25% from 2010 onwards [Servicio de Información de Educación Superior (SIES), 2020]. Currently, the private non-CRUCH universities account for 43.9% of enrolment. These fact illustrate the progressive privatisation of the Chilean university system (Espinoza, 2017). The external quality arrangements currently in place have not developed in a vacuum, and have very much been adapted to the Chilean system's particularities. Just as importantly, they have emerged in the context of worldwide changes in response to the issues of massification and progressive privatisation [OECD, 2020; United Nations Educational, Social and Cultural Organization (UNESCO), 2021].

As of 2021, 85.1% of universities are accredited, a figure lower than the 91.4% of 2010. Not yet subject to the system are the two recently created state universities (O'Higgins and Aysén) and two private universities. The four non-accredited universities are private. Fully 96.8% of students are enrolled in accredited universities (CNA, 2021). But different types of university display different results. The traditional sector has seen an increased number of accredited institutions and average length of accreditation. Without considering institutions outside the system or those not accredited, since 2010, out of a maximum of 7 years, state universities have increased their average accreditation from 3.75 years to 4.8 years,

traditional private universities from 5.2 years to 5.7 years, and new private universities from 2.9 years to 4.1 years (CNA, 2021). This positive evolution has been linked to differential "institutional learning" between types of university (López *et al.*, 2018b). Analysis of the results of externally evaluated quality assurance processes using this operational classification of Chilean universities reveals that the individual performances of each university correlate with their place in the typology. Traditional private universities belonging to CRUCH have the highest proportion of high performers and new private universities the lowest performers. Accreditation length is explained to a high degree by the accreditation of the elective areas of research, postgraduate activities and outreach (López *et al.*, 2015).

The accreditation results of accredited universities over the past 10 years indicate that only 35% of these universities have received accreditation across their total number of elective areas. When considering the results of accredited universities, state universities have increased their average number of elective areas from 1.25 in 2010 to 2 in 2021, traditional private universities from 1.78 to 2.5 and new private universities from 0.29 to 1.15 (CNA, 2021).

To interpret these results, it is necessary to consider differences in the elective areas. In the area of outreach, the area with the best results, state universities increased accreditation from 63% in 2010 to 100% in 2021, traditional private universities from 90% to 100% and new private universities from 25% to 70%. In research, the differences are greater. State universities with accreditation in this area increase in the same period from 50% to 69%, traditional private universities from 67% to 80% and new private universities from 4% to 30%. In postgraduate studies, the area with the worst results, state universities rose from 19% to 38% accredited, traditional private universities from 56% to 70% and new private universities from 4% to 15% (CNA, 2021). The classification of universities and their results in quality assurance opens discussion on the meaning of public and private in universities and the legitimacy of the provision of state resources (Améstica *et al.*, 2014; Paredes, 2015).

Institutional accreditation processes have had a positive impact on the structures, organisational cultures, management practices and models implemented by universities (Brunner, 2004; Lemaitre, 2005, 2015; López *et al.*, 2015). In recent years, generalised results of institutional accreditation for Chilean universities have been studied deploying variables associated with management, planning, internal organisation and quality of information (Fleet *et al.*, 2014; Bernasconi and Rodríguez, 2018; Fernández and Ramos, 2020). Yet the bureaucratising nature of the process has also been felt (López *et al.*, 2019b), transforming accreditation into an end in itself rather than a way to kindle a culture of improvement. Controversies and scandals, including the exposure of corruption in certain cases, have led to perceptions of inconsistency in accreditation rulings as to the institutional development of some universities (Espinoza and González, 2012, 2013; Salazar and Leihy, 2014). Recently, the presence of bias in the voting practices of those appointed to make institutional accreditation determinations has been verified, uncovering a tendency of members to favour the types of institutions that nominated them for the role (Barroilhet *et al.*, 2021). As such, the classificatory types of university can be seen to carry loyalties that perpetuate differential treatment as well as reflect different cultural values; nevertheless, the overall behaviour of the university groupings is evident in patterned achievement under external evaluation.

External evaluation and accreditation of degree programs
The accreditation of degree programs in Chile has operated through similar mechanisms and yet independently from those used in the accreditation of institutions. Although in both

cases a mixed system of self-evaluation and external peer evaluation is used (Vanhoof and Van Petegem, 2007), there are differences in the procedures and as to who carries out external evaluation. While institutional accreditation has been the exclusive terrain of the CNA, in the case of degree programs, it has been delegated to private agencies certified by the CNA. In 2018, regulatory changes saw the closure of these agencies, and no degree programs have been accredited since. Although institutional accreditation has mandated evaluation of undergraduate teaching, neither the quantity nor the quality of the programs measured by their accreditation times is an input into institutional accreditation. However, there are underlying relationships between program indicators and institutional accreditation (Toledo and Rojas, 2019) and between the quality of the degree program and the university that teaches it (Crovetto and López, 2020b).

The accreditation of degree programs has been associated with a subsequent expansion of programs, i.e. renditions of a particular degree program taught at different sites or with different modalities or schedules, developed to seek out, stimulate and meet market demand (Meller and Lara, 2010; Rodríguez-Ponce, 2012). The increase in programs has occurred, on the main, in less selective institutions that have been accredited despite their deficiencies (Espinoza and González, 2013; Barroilhet, 2019).

There have been studies on accreditation and quality assurance processes in various fields, such as kinesiology (Solari-Montenegro *et al.*, 2016), nursing (Guerra and Sanhueza, 2010), psychology (Zurita, 2004), art (Villegas, 2014), technical careers (Maretta and Muñoz, 2009), social work (Castañeda and Salamé, 2014) and nutrition (Crovetto and López, 2020a). Note the strong representation of health fields, whose professional bodies are typically watchful of the public standing of their professional standards. Such studies address, generally, the effects of the implementation of the regulatory system on degree programs and their courses, including impacts upon curricular structures, graduate profiles and learning outcomes. The awarded length of accreditation of degrees, which in some cases reflects their assessed quality level, does not necessarily take into account internal capacities (Navarro, 2007). In other cases, however, it is directly associated with efficiency indicators (Toledo and Rojas, 2019). There are also background studies about medical education, regarding the enrolment expansion of courses including the establishment of the discipline in new institutions. External considerations, such as the impact of this historically prestigious and resource-intensive discipline on the image of institutions in their competitive positioning, as well as forces of supply and demand, often outweigh academic rationales or the social aspirations of the country (Fernández and Bernasconi, 2014). The case of medicine could indicate a more generalisable trend, especially in other health professions that model their "program affiliation" and "subject dignification" within university settings (Clark, 1987) after medicine's universal respectability. Regressive effects have also been posited due to potential competition between universities for better-prepared students (Salazar and Leihy, 2017), which could impact upon supply. Differences in the perception of the results of national quality assurance policies according to type of degree have been explored using a taxonomy based on the length of accreditation of each degree program and the number of degree programs accredited by the institution (Scharager and Aravena, 2010).

Other Latin American countries share Chile's concern particularly with quality assurance in undergraduate education (Acosta and Acosta, 2016; Anchundia and Santos, 2020; Baños-Martínez and Fernández, 2021), differing mainly in the strategies and instruments used. There are also differences in the roles of national accreditation agencies, although there are convergences in structural aspects, and differences tend to be at the operational level (Pulido, 2019). Most of the information arising from studies on the external

evaluation and accreditation of careers in Latin America is of an exploratory and qualitative nature, drawing heavily on perceptions and interpretations.

Programs in nutrition and dietetics offer a good viewpoint with a critical mass of quantitative trend-lines for analysing the external evaluation and accreditation of degrees, and particularly the formative potential of quality assurance in a fast-emerging field. Results in accreditation processes for nutrition have been subject to recent studies, where both qualitative and quantitative methodologies have been applied (Crovetto and López, 2020a, 2020b, 2021). Although the training requirements for this profession reflect epidemiological, economic, social and cultural considerations (Labraña *et al.*, 2005; Parra *et al.*, 2020; Crovetto and López, 2020a), the supply of degrees and their characteristics have been largely shaped by demand. Although nutritionists have been trained in Chilean higher education for more than 50 years (Labraña *et al.*, 2005; Yáñez-Andrade, 2018) and updated requirements have been formulated for their training, there has been a general awareness of the importance of meeting sheer growth in the demand for personnel in this area of health (MINSAL, 2016), potentially over-riding quality assurance qualms. In the year 2000, only 5 universities offered nutrition, but in 2018 it had reached 42 higher education institutions (Crovetto and López, 2020a). More than half of the supply of programs has been generated in the new private universities, which historically depend on private financing (Brunner and Uribe, 2007; Espinoza, 2017). This situation has changed in recent years, where many of these universities have come to access state funding, particularly through subsidised demand, with first universally available student loans and then state-funded places for the poorest students (Rodríguez-Garcés and Padilla-Fuentes, 2021). Such tuition exemptions respond to the demands of the student movement in 2011 (López and Prado, 2016). That year would see mass student demonstrations that enjoyed support from the wider community. The protests called for an end to for-profit higher education, universal fee-free undergraduate studies and the forgiveness of student debt. It bears mention that fees in Chile are among the most expensive in the world (Meller, 2011).

The voluntary nature of accreditation for nutrition careers has favoured its growth. The number of nutrition and dietetics programs remained relatively stable until 2000, but 15 years later the supply had grown exponentially. Also, several degree programs, particularly the newer ones, would be deployed in different campuses or with different modalities or schedules, with an average of almost 3 such versions per degree program (Crovetto and López, 2020a). For this reason, external evaluations would contemplate whether the conditions were similar in the different versions of the same degree program offered by an institution. Subsequently, the number of programs has remained stable, but branch campus versions and student numbers have tended to decrease in line with demand [Servicio de Información de Educación Superior (SIES), 2020]. It is debated whether this reduction is the result of oversupply or of a manifest lack of job opportunities for graduates. There is still, however, a deficit of nutritionists in public hospitals (Crovetto, 2015), such that labour market insertion may depend more on the lacking coordination of public policies and on economic conditions, than on the real social and health needs of the country. Additionally, the economic fallout of the COVID-19 pandemic of the early 2020s may dissuade young people from low- and middle-income families from pursuing higher education (Montt *et al.*, 2020).

The average time of accreditation of nutrition and dietetics programs is 4.7 years, with none reaching the maximum accreditation of 7 years. 60% of the programs are accredited. These indicators data are representative of the overall situation of undergraduate programs in Chile, of which only 5.68% reach the maximum accreditation period and about 30% lie outside accreditation processes (Crovetto and López, 2020a). A qualitative study of

accreditation resolutions in nutrition over a period of 13 years reveals that in many programs there are problems in processes of admission and selection of students, graduate profiles, curricula, implementation of the institutional educational model, budgets and planning of activities, levels of properly qualified academics, scholarship and academic support to students, degree standards, indicators of pedagogical effectiveness and links with graduates and employers (Crovetto and López, 2021). The analysis of accreditation resolutions show there are positive and negative relationships between graduate profile and curriculum, and between the academic staff's qualifications and research performance. (Crovetto and López, 2021). In nutrition, the correlation between the quality of programs and the quality of the universities that offer them is in evidence, which can be interpreted as reflecting institutional differences in internal cultures, organisation, management and availability of resources. In effect, while the length of accreditation of nutrition programs was positively associated with the length of institutional accreditation, it was not correlated with a higher number of students, higher tuition costs and entrance test scores of first-year students (Crovetto and López, 2020b).

Conclusions

From a thorough examination of the literature, is possible to identify that Chilean EQA displays the following internationally observed tendencies:

- It serves as a regulatory mechanism of market-based interinstitutional competition (Sánchez-Chaparro *et al.*, 2020), through both institutional and program accreditation (Stensaker *et al.*, 2011).
- It informs evidence-based policy and has inspired various ways of demonstrating and identifying impact (Leiber *et al.*, 2015; Lucander and Christerssen, 2020).
- It has seen the emergence of a national normative on quality assurance in higher education, with procedures constantly evolving (García *et al.*, 2021).
- The development of mixed self- and external evaluation in accreditation processes (Harvey and Knight, 1996).
- Organisational changes within universities, especially with respect to the professionalisation of institutional quality management and strategy (Leiber *et al.*, 2015),
- The incorporation of quality improvement indicators, especially of the effectiveness of teaching, stakeholder satisfaction and employability (Loukkola *et al.*, 2020),
- A clear if loose association between improvement (that is, betterment according to one or more indicators) and quality assurance (internal policies, procedures and practices designed to achieve, maintain and improve quality) (Williams, 2016).
- The incorporation of standards and/or other accountability mechanisms (Harvey and Williams, 2010).
- The use of rankings for accountability, despite their not being designed to guide improvements in quality (Hauptman Komotar, 2020).
- Ascertaining positive and negative effects of institutional accreditation, providing feedback to take into account.

In recent years, most Chilean universities have undergone external evaluation and institutional accreditation processes. Institutionality has been consolidated, with changes evident in how institutions operate. There is evidence of positive effects on both

management and academic practices, but there are mounting problems with bureaucracy and the inconsistency of procedures. Recent regulatory changes seek, among other things, to bring institutional and undergraduate program quality assurance into line with one another, with institutional accreditation now involving the examination of a sample of programs. Furthermore, reforms aim to introduce the use of standards to make external evaluation more objective, and to incorporate the quest for excellence into the concept of quality.

External evaluation and accreditation of universities and degree programs respond to the notable proliferation of campuses, degree programmes and students, in a commercial context of supply and demand and private interests. Major priorities have been the consolidation of a SINAC through regulatory changes aimed at HEIs as a whole, making institutional accreditation compulsory. There is a growing link between accreditation and access to public funds, and some HEIs have been shut down due to financial or academic insolvency. In the case of degree programs, many of which offer several versions at different locations, in different modalities and with different timetables, the emphasis of external evaluation processes have seen the development of institutional educational models and brought operating conditions into sharper focus.

An aspect peculiar to Chile is that the historical classification of universities ("traditional" state and private members of CRUCH, and "new private" non-members) continues to pattern institutional diversity and differences in access to and control of public funds. The results of institutional accreditation, where common procedures are applied, show the essential consistency of this typology.

Most of the research on quality assurance, both at institutional and program level, is exploratory and qualitative. Such research is mainly concerned with the effects of QA processes in particular cases, with the perceptions of internal stakeholders, or with changes in indicators of coverage and performance. More studies are needed to identify patterns, causal relationships and analysis of variables based on the outcomes and impacts of quality assurance regulation, as well as formative research in which teaching practice is monitored. Collecting and systematising such information promises a potentially high impact on improving the quality of institutions and programs that train professionals and technicians in Chile. External evaluation has a great deal of potential for the better coordination of higher education, but in the Chilean case requires continuous adjustment to account for the competitive dynamics of the system.

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Corresponding author

María J. Rojas can be contacted at: mjrojas@upla.cl