ABSTRACT
This study analyzed the formation of the concept integrality in health by undergraduate students of the nursing bachelor and licensure course in a historical-cultural approach. This is a qualitative descriptive study, conducted in a public state university, with 24 students. The information was collected through interviews and it generated three categories agreeing with the stages to form a scientific concept, entitled: The initial plurality of the integrality in health concept senses; From generalizations of subjective impressions to concreate attributes; The potential concept or pseudo-concept. The analysis revealed a dialectic process between thoughts and speech. The integrality in health concept evolved from the words "everything" and "whole", to an association with the Unified Health System principle, to the team work as guide for health practices and organization of services. It is concluded that the formation theory of concepts in the historical-cultural approach, allowed to identify advances and gaps in learning when building knowledge of students.

Descriptors: Integrality in Health; Education, Nursing; Learning; Teaching.

RESUMO
Esta pesquisa analisou a formação do conceito de integralidade em saúde pelo aluno de curso de bacharelado e licenciatura em enfermagem numa abordagem histórico-cultural. Trata-se de uma pesquisa descritiva qualitativa, realizada numa universidade pública estadual, com 24 alunos. As informações coletadas por entrevistas geraram três categorias conforme os estágios de formação do conceito científico, intituladas: A pluralidade inicial dos sentidos do conceito de integralidade em saúde; Das generalizações de impressões subjetivas aos atributos concretos; O conceito potencial ou pseudoconceito. A análise revelou um processo dialético entre pensamento e fala. O conceito de integralidade em saúde evoluiu das palavras tudo e todo, para a associação ao princípio do Sistema Único de Saúde, ao trabalho em equipe como orientador das práticas de saúde e na organização dos serviços. Conclui-se que a teoria de formação de conceitos na abordagem histórico-cultural, permitiu identificar avanços e lacunas na aprendizagem do aluno na construção do conhecimento.

Descritores: Integralidade em Saúde; Educação em Enfermagem; Aprendizagem; Ensino.
INTRODUCTION

Integrity in health is one of principles of the Unified Health System (SUS) in Brazil, and possibly the most neglected in provided care. It is discussed that to understand and practice it in health professionals’ training, as established by the National Curriculum Guidelines, a collective effort from professors and professionals is necessary for its consolidation. This, in consonance with the ongoing project and the profile of professionals attending realities experienced in the job world. In this sense, it is constituted as one of the guiding axis in nursing training[1-2].

Conceptually, integrity is understood as an articulated conjunct of health actions and services, preventive and curative, to attend individual and collective demands and needs, in which biological, cultural, and social dimensions of citizens are considered. This is built in the work process of health teams, in the routine, by democratic interactions of subjects, guided by guaranteeing autonomy, by the solidarity exercise and by the recognition of freedom in care and health choices, expecting to produce emancipated transformations in peoples’ life[1-3].

With this perspective, integrity in individual and collective care considers the user as historic, social, and political subject inserted in a determined familiar and environmental context, and in a determined society. Thus, integrity has, in the field of health practices, a privileged space to materialize it as a right and service[1,3].

From this perspective, integral health care and nursing are not constituted only by a concept, but overall, in an action instrument involved with a systematized conjunct of activities and practices for health promotion, prevention of diseases, treatment, and health recovery, able to approach diverse aspects related with health production.

In pedagogical practice, when training health professionals, the integrity principle is developed in routine actions, based on dialogue between those teaching and those learning: academics, professors, health workers and users[3].

With that, it is reiterated that in the educational planning of Nursing undergraduate courses, the articulation of educational activities in the work space happens, where the student when involved in the real health world, can experience and develop care practices compatible with primary health care.

This articulation should be done by professors with pedagogical and specific skills, compromised and sensitive to transformations and innovations occurring in the Health and Education world[2-3].

In this perspective, contemporary pedagogical tendencies in Nursing Education tries to break the traditional teaching model, eminently turned to memorizing contents conveyed with a reductionist reflection by the professor, and advances to those favoring critical and reflexive thinking, the interdisciplinarity, the team work and the importance of a cultural context. The problematization reality is constituted as a starting point for significant learning, construction of new knowledge based on the need to reflect and to scientifically fundament it on how to intervene in the studied reality[4-5].

However, the national and international literature points the need to advance in this perspective, because there is a gap in the professor’s training to develop diverse learning strategies to attend these transformations, based on critical thinking and significant learning[3,6-7].

With that, the relevance of the present study is anchored on the necessity to comprehend how the student build a scientific concept in a critical and reflexive educational proposal, so the professor, from a theoretical base, can sustain the pedagogical practice in the formative process of the future nurse.

For this, the historical-cultural approach from Lev Semenovich Vygotsky (1896-1934) was opted. It considers the human being constitution in the context of relationships historically produced by a group of men[8-10],
and its reference about the creation of concepts offers scientific fundamentals consistent with this research that can elucidate and interpret the findings. Following this author \(^{(11)}\), to create efficient teaching methods, it is necessary to understand how scientific concepts are formed. His investigation indicates it as constituted by three distinct stages. At the first one, occurs the formation of a non-informed and non-ordinated plurality of objects that although discriminated, they are unified without sufficient internal fundament, without internal similarity or relation between constituting parts. At the second stage, generalizations are made based on concrete attributes; they are coherent and objective, as indicated by the author. In fact, the author has in his base a factual bond between particular elements that integrate its composition that was called complex. The researcher still identified that in the complexes, bonds can be of five types: by association, by collections, by chains, by complexes and at last, pseudo-concepts. In this one, the connection between its elements is established in a mechanical way; the individual does not have the capacity to assess the nature of laws uniting the conjunct. Only real and true concepts have logical connections between its components, which can be the exam and reflection object by the subject’s part, characterizing the third and last stage of scientific concept formation \(^{(11-13)}\).

The true concept involving the combination and generalization of determined concrete elements of experience, its discrimination, abstraction and isolation, and still, the ability to examine and abstract them outside the concrete and factual bond in which occurred \(^{(12)}\).

In this context, the learning objective should be to propitiate the comprehension of laws that govern each generalization, in a way that concepts are perceived as systems, characterized by a logical and abstract organization \(^{(11)}\).

Facing the changes and transformations in nursing training, this research aimed to analyze the formation of the integrality in health concept by students of a bachelor and licensure undergraduate nursing course, in a historical-cultural approach.

**METHOD**

A descriptive study of qualitative nature \(^{(14)}\), in which data were analyzed based on the historical-cultural theory \(^{(8)}\), conducted in a nursing undergraduate course of a public institution of superior education located in the interior of São Paulo state.

In the referred course, the student has learning opportunities when working and taking ownership of the nursing training related to integral care of individual and collective needs at the Primary Health Care (PHC) and Hospital attention. It happens in agreement with SUS principles, in a way to contemplate individual needs in distinct phases of life, integral care for collective needs, organization, and management of care, health services, and nursing. Thus, from the first to the fourth year the student is exposed to the integrality concept, from the name of disciplines in the curriculum structure. In the education field, it is on the third year that students starts to develop attributes (knowledge, abilities, and attitudes) for the faculty in the school scenario of technical professional education in nursing, involving politics, managements, pedagogical and relational dimensions to comprehend and act in this context. At the first and last year, it is expected from students the enhancement of competency for faculty in the professional education, therefore, the integrality concept to be expanded for the educational practice context \(^{(15)}\).

The concerns experienced in real practice scenarios, basic health units and hospitals, family health nucleus, basic education and professional schools of the referred course, caused the necessity to explore how it the formation of the integrality concept in health, considering its comprehensiveness and complexity.

To select the group of participants, all students regularly enrolled and attending the 3rd and 5th years of the course were invited, a total of 79 students. From those, 24 were interviewed being 12 from the 3rd year and
12 from the 5th year, a group considered representative and sufficient so the objective of the study would be reached, when observing the theoretical data saturation, that is, convergences of the investigated content\textsuperscript{[16]}. We included in the study, students from the 3rd year approved in the theoretical-practical disciplines with scope on integrality of care, and excluded those who failed in the referred disciplines; and students from the 5th year who concluded the first half of the supervised curricular internship in the basic attention or hospital. We excluded those who were still meeting the sufficient hours of it.

In this sense, we considered opportune experiences by the curriculum structure in the first half and at the last year of course, expecting to observe contrasts considering the time of training.

Two students of scientific initiation conducted the data collection. It occurred between May and June of 2013, in a private room in the researched institution, using interviews guided by the question: How do you conceptualize integrality in health? All participants signed the Free and Informed Consent Term after receiving guidance about the procedures and their rights, before their initiation.

The interviews were recorded and fully transcribed for data analysis, comprehending the process of consecutive readings of full transcriptions and, the dialogue with the researched sources to interpret the data based on Vygotsky’s\textsuperscript{[11]} theory. This theory is situated in a historical-cultural approach referred to stages to form the integrality in health concept.

To preserve identities and anonymity of each student, the interviews received codes starting with E1 until E24.

The study met the recommendations of Brazilian norms for research with human beings and it was approved by the Ethics in Research Committee, under the Protocol CAAE: 04174412.0.0000.5393.

RESULTS AND DISCUSSIONS

The appropriation of objectives historically produced by men, or their awareness, passes through the scientific concepts thought at schools, as integrality in health that has a fundamental role in the construction of the Unified Health System.

We corroborate with the idea of a process approach, in the treatment of building concepts. Vygotsky tried to demonstrate that the concept has a history in the individual’s life and social group, because he was interested in transformations of ways to know, when characterizing the instability of each conceptual functionality step, and even relativize the succession of steps\textsuperscript{[13]}. To interpret speeches of students about the appropriation of this scientific concept in this approach, it put us in a complex reflection exercise of theoretical articulation and its implications for nursing training. This exercise has a dialectic character, as it is presented here, as it is understood that the concept expressed by a word represents an generalization act in any age, however, its meaning evolves\textsuperscript{[11]}.

The following discussions are based on evidence of this evolution in the posteriori perspective, forming considerations about the teaching-learning process, which allows to think deliberately, systematically and intentionally, in the dynamics of the construction of a scientific concept\textsuperscript{[6-7,17-18]}.

Thus, the steps to form built concepts in studies conducted by Vygotsky were articulated to the construction of integrality concept, from what was reported by nursing students. In this perspective, the sight is on the expressed word and its meaning, and confirms the interpretative potential of the historical-cultural approach. For Vygotsky, the word is a thought and a word at the same time, and every word has a meaning, and it is in this meaning that we find the verbal thought unity that we are looking for\textsuperscript{[11,17]}.

With this, the analysis of recorded interviews in this study allowed to identify the concept formation stages for
integrality in health. They were identified and named, as follows: First stage – The initial plurality of integrality in health concept senses; Second stage – From generalizations of subjective impressions to concreate attributes; and Third Stage – The potential concept or pseudo-concept. Although the true concept was not identified in the speeches of students, the description of a fourth moment to broaden the discussion was considered, being named as: The expectations of the true concept.

First stage – The initial plurality of integrality in health concept senses

In general, students adopted the words everything and whole to conceptualize health integrality. It also comprehends integrality as a refusal to look at the subject as sick, which appeared in most of student’s speeches from the 3rd and 5th year. Besides, considering integrality expressed on the first category as initial plurality of integrality in health concept senses, it was also possible to identify four integrality interpretations within this first stage, and we observed a progression in the concept appropriation.

In a first moment, we identified a lack of elements to elucidate the integrality concept in the following lines:

I consider integrality as being something in conjunct, of all people [...]. (E1, 3rd year).

I think that integrality [...] I see as a question of [...] to be the whole health question involving all concepts, all fields, all general, so what we can address, is for example [...] many health questions within one [...]. (E14, 5th year).

Posteriorly, we observed the look for care in the professional practice:

Ah!!! Integrality for me is everything, is all care since when the patient arrives, when you assist, how you talk, how you care [...].(E3, 3rd year).

And an articulation with the health-disease process and the biopsychic dimension of patient care:

[...]to me health integrality is the whole, you not only look to the patient as a sick subject, but addressing everything [...]. How the patient feels, what the patient thinks, what is the patient doing, what would like to do, to try to always bring the person, then, put it all together. (E4, 3rd year).

As well as, we noticed an advance in comprehending the importance of biopsychosocial look and the approximation of the health concept:

I think that health integrality is to see the individual as a whole, right, not thinking only on the disease, but, in the environment where the patient lives, the family, what the patient has to eat, the house where the patient lives, this type of thing. (E5, 3rd year).

Humm it’s complicated (laughs). Well, in truth integrality, what everyone says, what we read a lot, is to see the individual as a whole, right? That biopsychosocial of the individual. So when you say that, I think that even to the technician is necessary, of course [...]. It is you implementing disciplines, or even if it’s not on the discipline, but on the content, as it exists there, you implementing this biopsychosocial view, not only the technique per se, to see the individual [...]. (E6, 3rd year).

We initially observed in the lines presented above a certain lack of concrete elements to explore the integrality in health concept. We also observed what would be the integrality in health meaning for students. We noted the tendency of students to substitute the lack of objective nexus by a great abundance of subjective impressions and to make confusion regarding the relationship of these and the thought, with the relationship between objects. The impressions were predominant in the links, and not objectivity, that is highlighted by the adoption of the words “everything”
and “whole” by students to give significance to the integrality concept.

Yet, meanings of words are dynamic and dialectic formations that are intrinsically modified, and should be understood as a continuous coming and going process between thought and word\textsuperscript{(12)}. Each thought tends to establish relations between things and facts; therefore, it matures and is developed, performs a function and solves a problem. Thus, the thought comes into being through the word\textsuperscript{(11-12,17)}.

Thereby, we understand that when not properly problematized, the development of a thought does not reach its true potential, or even reaches with certain delay.

Advances were identified in a sense to articulate health integrality to the professional routine practice, the approximation to the health concept and to the biopsychosocial dimensions involved in care. This progression can articulate it to one of the first concept senses of integrality, that is, the integrality is considered as a refusal to the health care fragmentation, one assistance-prevention articulation, necessary appreciation to the biopsychosocial dimension of the human being and a critic to curricular arrangements of flexnerian base. Its appreciation is concentrated in the dichotomy between the basic-laboratorial and clinical-professional teaching, in which it was also observed proposals curriculum reforms\textsuperscript{(2,5,18-20)}.

Such advance of the integrality meaning by some students can be also the reflex of the advance in the problematization around the integrality concept, present in learning cycles. This possibly helps the development of thought potentialities and still, to suggest aspects related to the individuality of each student and their experience with the theme beyond the learning cycles.

**Second stage - From generalizations of subjective impressions to concrete attributes**

The second stage was predominantly composed by the contribution of students from the 5\textsuperscript{th} year. On the second stage of scientific concepts formation, Vygotsky indicates the thought as coherent and objective and it is given as complex\textsuperscript{(11,17)}. The differences between the true scientific concept, the last stage of its formation, and the complex, are the following: if on the complex objects are generalized by most diverse facts, on the concept they are by a trace, reflecting an essential bond and uniform and a relationship between the objects; on the complex, this bond in concrete, factual and fortuitous. On the complex, objects are connected by diverse casual bonds, frequently without anything in common between them, while the concept is based in logically identical bonds\textsuperscript{(11-12,17)}.

The descriptions corroborating with the exposed characteristics were identified in the lines below, as the following examples:

*Integrality is a concept that we have at SUS, it is a guiding concept, of many health actions. (E19, 5\textsuperscript{th} year).*

*It is one of SUS guidelines SUS [...] it is about treating the patient with a critical view, focusing in the prevention and health promotion. (E20, 5\textsuperscript{th} year).*

* [...] and I think we have to use integrality for them to understand that there is the nurse role, but exists the doctor role, the psychologist role, the T.O, that there are many roles in health and they can be worked in conjunct [...].(E9, 3\textsuperscript{rd} year).*

*To me integrality, it does not exists without the multi-professional conjunct, because only nursing can try to have a holistic view to health, to the patient, but it cannot do it alone, so it needs to have a conjunct, an interdisciplinary bond, and this concept should be addressed in this sense, so there are an interaction in the professional future. (E22, 5\textsuperscript{th} year).*

It is observed in these lines that students from the 5\textsuperscript{th} year broadened what was expressed about the initial integrality concept present in the first category, substitution the lack of elements to give significance to the concept by a more coherent and complex way of thinking, as highlighted by Vygotsky. Besides, from the
reports, it was possible to identify three of the five types of existing bonds in the complexes, as: the associative ones, once an integrality association was reported to one of the SUS principles; the collection and chain ones, when bringing up work in a multidisciplinary team as critical guide for professional’s health practices. Thus, although the thought is more elaborated – that is, more associative, complementary, and integrated – it is noted that the thinking by scientific concept was not reached yet, the last stage for its construction. We also noted that although the thought is apparently more organized, it did not reach broader dimensions of the integrality concept, the one related to the practice attributes of health professionals still persists\(^{6-7,11-12,17}\).

**Third stage – The potential concept or pseudo-concept**

Only the report of one participant from the 3\(^{rd}\) year corresponded to the third category. At the last development stage of thought by complexes forms the potential concept or pseudo-concept\(^{11-12}\), identified in the penultimate category:

*So, health integrality is a concept of the [...] from SUS itself, from the network organization, the access integrality, from the primary care until other spheres of attention, until tertiary level, and as the relationship that they have, the relationships between them, as it is the accompaniment of an individual inside SUS, it is given in an integral way in the attention spheres [...] to consider the attention network, the access and if they communicate within them, right, in the attention spheres. (E11, 3\(^{rd}\) year).*

According to the adopted reference\(^{1-3}\), this report was able to give meaning not only to practice attributes of health professionals, as well as the organizational attributes of services and health practices. In this dimension there are a horizontal programmatic of vertical programs and a criticism to the non-association between practices in public and assistencial health. So that services would be organized in a way to broadly comprehend the populations’ needs to which they attend, and to be open to assimilate a non-contemplated need in the previous given organization. A study points that there is no continuity about the question in determined disciplines, and there are also a dichotomy between theory and practice, basic and hospital attention\(^{20}\).

Articulating the formation of thought, the generalization is still given by complexes in this stage, what can be suggested and sub-understood as an approximation to the true concept. However, in the pseudo-concept construction, the relationship between the elements comes ready from the exterior through a contact with people who already know the logic of laws of the equivalent concept. The intellectual operation to discern the nature of connections in question is not required, because it is provided by others. It is observed that in the routine, the difference may be not noticed in interactions between the subject forming the pseudo-concept, because this does not perceives the coherence between the equivalent concept elements\(^{11-12,17-18}\).

It is important to note, that although adolescence is considered the moment from which thoughts by concepts are possible, it should not be seen as the conclusion period, but a critical moment of thinking maturation. Even concepts of adults, considering that their application reduce the field of routine experience, they are not frequently put above pseudo-concepts level\(^{12}\).

However, to use a concept in a concrete situation is not difficult. The transfer of concepts process occurs when discriminate and synthetized attributes are found in a diverse environment, with other different concrete attributes. Thus, the verbal definition will be limited, as sometimes below the expected, from how the concept was used\(^{11}\). It implicates in fundament oneself under the abstract plan of pure language, that requires references to new aspects, still not experienced\(^{12,17-18}\).

As previously reported, data to elucidate the true integrality concept was not obtained. Thus, it was considered pertinent and needed to discourse about the
expectations of the true concept, to amplify the discussion.

In accordance with Vygotsky, only about the use of the word as a way to form a concept, emerges the singular significant structure called genuine concept\textsuperscript{(12)}. Thus, we can say that there is no concept without the verbal activity and, considering its social character, the formation of the true concept precede the use coming from the exterior, during social relationships. Besides, this author also discourse about notions and distinctions of the spontaneous and scientific concept. Thus, while the first is expressed in routine situations, the second has its use in relationships of academic character, therefore demanding more complex operations to be created\textsuperscript{(11-12)}.

Considering the school context, the problematizing of facts is opportune, in a sense to enhance the intellect and thus, the learning of scientific concepts, and the reflection of those, which have in the word the crowning of action\textsuperscript{[4,7,11]}.

The preoccupation of professors and researchers about the importance of theory fundaments that underlies the learning of true concepts in accordance with Vygotsky theory, is still little in the literature, but the following example illustrate the implications of this study and potential for future research.

A study about learning by nursing simulation assessed this educational practice in artificial environments\textsuperscript{(21)}. The authors identified the limitations in student’s learning strategies, in the formation of true concepts underlying health. Because, although it favors the technical competency domain, the simulation leaves the student uncertain about the communication with the person and the resolution of problems, in which needs to reflect about the action, that in the health reality is inserted in diverse and complex contexts. The researchers highlighted the importance to define a theoretical base of these strategies to be used in a conscious way in a conjunct of teaching methods, and concluded that the Vygotsky theory allied with the applied theatre and the personification should fundaments its planning\textsuperscript{(21)}.

Even if the simulation coexist in a larger context of nursing training, the research suggests that in the teaching planning, the pedagogical grounding and the conscious act of teachers should be based on a learning theory. How, why and when to learn deserve attention of researchers, once we still find educational practices full of traditional pedagogy that limits it to reproduce the formal logic, which is totally disconnected from reality\textsuperscript{[4-7]}. Although the discourse of two active and problematizing methodologies have intensified teaching training\textsuperscript{(22)}, this concept still seems distant of generalization in pedagogical acts\textsuperscript{(23)}.

The considerations of Vygotsky about the word importance and the formation of true concepts as determinant part of actions is related to the learning of procedure contents – which are related with the development of skills and competencies, presenting a common fact of culminating in a conjunct of actions. Learning for this type of content involve four main axis, since making actions until exercising actions (to reach the action dominance); reflecting about its own activity; the applying it in difference contexts (theoretical-practical articulation)\textsuperscript{[23-25]}. In this perspective, thinking by true concepts is important to build the social responsibility, in a sense to culminate in transforming practices that improve the actual reality – which is complicated through thinking by complexes or by spontaneous concepts, once in these, the thinking is fragmentally guided.

In this sense, the study scenario with clear proposals and concrete actions is based in this approach, it makes approximations that reiterate the importance of the collective teaching around the pedagogical cycle, but that still lacks studies that can aggregate new concepts about the educational practice in nursing.

**FINAL CONSIDERATIONS**

This study allowed a systematized reflection about learning the “Integrality in Health” concept, central for nursing care. By the historical-cultural approach, and the theory of forming concepts from its main representative,
Vygotsky, it was possible to identify advances in student’s learning and to identify gaps in this dynamic and dialectic process, as the lack of the true integrality in health concept. From this study, the teaching challenge is considered in the routine of following this process and, propitiate diverse strategies to favor construction of true concepts that can base health care.

We reiterate the importance to form concepts in concrete conditions to live and in the history of student’s social life. The study showed that there is still a fragility of the relationship between the thought and the word when the student expresses the concept of integrality in health learned until the moment. The gap in the construction of a genuine concept and the thinking by complexes means to propitiate a fragmented care, in which the professional cannot visualize the extension of his actions, and the integrality in health concept will be part of the discourse, but still distant from action.

We highlight that the concept in itself and for others is developed in the student before the development of the concept for the student. For this reason, experiences in health environments are important and the reading of theoretical references that can subsidize the comprehension of the student’s speech, in dialogues propitiated for knowledge synthesis.

ACKNOWLEDGEMENTS

We thank the support from the Pro-Teaching Health Program – CAPES 2037/2010.

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Received: 03/11/2015.
Accepted: 06/09/2015.
Published: 12/31/2015.