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Andes pediatr. 2021;92(3):341-348
DOI: 10.32641/andespediatr.v92i3.2545

CLINICAL OVERVIEW

Child and adolescent Liaison-Consultation Psychiatry and Psychosomatic Medicine in a Clinical-Teaching Hospital

Psiquiatría de Enlace y Medicina Psicosomática Infanto Juvenil en un Hospital Clínico-Docente

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Received: May 20, 2020; Approved: March 31, 2021

What do we know about the subject matter of this study?

Pediatric consultation-liaison psychiatry (P-CLP) has emerged as a subspecialty to address the psychosocial aspects that interfere in the disease process or its recovery. It is an emerging discipline, incorporated within the mental health plan 2020 on which there is scarce national and international literature.

What does this study contribute to what is already known?

This article describes the clinical experience of a P-CLP unit working in a university clinical hospital. It provides the view that emerges in this Unit and reflects on both clinical and teaching approaches to work in this discipline.

Abstract

Psychosomatic medicine explores the psychological, behavioral, and social elements that influence people's health and quality of life. This discipline develops skills and knowledge used in the evaluation and management of psychosocial elements interfering in the process of illness and healing. The Child and Adolescent Consultation-Liaison Psychiatry (CACLP) is a discipline that has been empirically installed in order to favor adherence to treatments and recovery of children and teenagers during the process of illness. There is a need for developing this discipline in Chile, but so far there are limited national and international records and literature dedicated to it. The objective of this article is to update the concepts of structure and describe how a CACLP unit in a high complexity teaching hospital works in general, discussing the clinical challenges involved in these issues.

Keywords:
Child and Adolescent Consultation-Liaison Psychiatry; Psychosomatic Medicine; Somatization

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How to cite this article: Andes pediatr. 2021;92(3):341-348. DOI: 10.32641/andespediatr.v92i3.2545

Introduction

Psychosomatic Medicine explores how psychological, behavioral, and social factors influence an individual's health and quality of life[1]. Consultation-Liaison Psychiatry is the discipline that develops the skills and knowledge used in assessing and addressing emotional, behavioral, and social conditions in patients who are referred from a medical and surgical setting[2]. This area of psychiatry has been described as a derivative of psychobiology, general hospital psychiatry, and psychosomatic medicine[1].

Pediatric consultation-liaison psychiatry (P-CLP) emerges as a subspecialty of child and adolescent psychiatry, responding to the need to address the psychosocial aspects involved in how the patient and family cope with the diagnosis and treatment of a medical illness in the hospital setting[3].

From this perspective, the P-CLP should take the lead in addressing, among others, the psychosocial aspects that affect the adherence or coping with the treatment of the hospitalized patient and her/his family; provide a differential diagnosis of psychosocial conditions and detect their relationship with the onset and/or maintenance of symptoms in the context of the medical pathology; collaborate, communicate, and coordinate with caregivers and the treating medical team, as well as ensure the follow-up of treatment with the outpatient team[4].

Many children and adolescents may (CA) need the support of the P-CLP. It is estimated that one-fifth of the child and adolescent population may suffer from a chronic disease or physical dysfunction throughout their development[5]. International studies report that between 11 and 15% of the child and adolescent population may have a mental disorder[6], however, studies on the prevalence of psychopathology in Chile have reported that this could reach up to one-third of the general child and adolescent population[7,8]. The relevance of these figures lies in the fact that CA with chronic diseases suffer between two to five times more psychiatric disorders than healthy children[9,10], where those affected by diseases of the central nervous system are 5 times more likely to present psychiatric diseases[11].

In the hospital environment, a higher presence of emotional and behavioral manifestations is to be expected in child-adolescent patients[5,12]. This context demands greater adaptive demands on CA, but also on the family system, which must adapt to the changes in the dynamics generated by hospitalization, deal with the expectations regarding an efficient solution to the medical problem that afflicts them, and, of course, support the emotional regulation of CA during the process[11].

Although most CA with medical illnesses are resilient, the effects of the disease can worsen the daily functioning, self-esteem, mood, and quality of life of the patient, impacting on the disease itself, on their family, and also on their overall performance[13]. In this context, the P-CLP plays the role of evaluating and treating the impact of the experience of the disease on the CA and their family, favoring a more rapid recovery of the basic medical condition and thus improving the quality of life of all those affected by this condition[11,13,14,15].

Internationally, there are few reports on the clinical work of P-CLP units, which hinders access to more information about how they operate and what could be the topics of this work that would allow a better result in patients[9,16]. Most of the existing reports specifically address certain fields of the discipline, including a greater interest in the management of suicidal behavior in CA who visit the emergency department and who often require hospitalization in clinical units for observation and medical management[17,18] or due to the suspicion, detection, and management of pediatric delirium[19,20].

In Chile, the National Mental Health Plan 2017-2025 has been developed which, as strategic development, seeks the promotion of training in consultation-liaison psychiatry for pediatric and adult psychiatrists and the creation of consultation-liaison psychiatry teams in the country's general hospitals, which work with a health network approach. The objective is that by the year 2025, 50% of high- and medium-complexity general hospitals will have established teams[21]. However, there are few national records on the operation of P-CLP units.

The objective of this article is to update the concepts related to P-CLP presenting the experience of a unit of a high complexity medical-teaching hospital, reflecting on the challenges of the subspecialty in our sphere.

Pediatric consultation-liaison psychiatry unit: structure and operation

The P-CLP team at the UC-Christus Clinical Hospital is made up of two child and adolescent psychiatrists and one or two residents of the specialty who work for 22 hours a week on working days, which by local regulations does not include referral to the emergency department. The P-CLP team along with the adult psychiatry team and the medical psychology team form the Psychosomatic Medicine and Liaison Unit. This unit holds weekly clinical meetings where complex cases and theoretical updates are discussed, with the participation of residents from adult psychia-

try, pediatric psychiatry, and related specialties who rotate through the unit.

Our P-CLP team holds biweekly meetings with the Hospital Pediatrics team to discuss cases that for the hospital pediatricians merit a psychosocial approach and to assess the relevance or not of an evaluation by the team. In this sense, the consultation to the P-CLP team arises from the need of the pediatric treating team, as well as from the request of their caregivers.

In those services that have their own psychosocial team with psychologists and educational psychologists, it is often these professionals who suggest psychiatric evaluation as support or complement to their interventions. Acceptance by the patient's caregivers is always required for our assessment and intervention to take place.

From the work of our Unit, sociodemographic and clinical data of patients up to the age of 18 years 11 months referred for evaluation are recorded during their medical hospitalization. Tables 1 and 2 and Figure 1 summarize the most relevant data of the sample recorded between 2015-2017. The referral rate to the unit is 3.63% of all hospitalized patients under 19 years of age (table 1), which seems always lower than the expected demand, considering the above mentioned where at least one-fifth of patients with medical pathology would present mental health comorbidity[5] and the high prevalence of mental health problems in the CA population in Chile[7]. This has also been reported in specialized reviews[4,22].

Regarding the characterization of the sample about sex and age, there is a greater presence of females (57%), and practically half of the sample is adolescent (47%). In this particular group, most of them are also female (65.6%). This behavior is also reported in similar studies carried out in our country[23].

From an epidemiological view, a higher representation of adolescents and the female population in the sample is to be expected, given the higher prevalence of internalizing psychopathology (anxiety, depression) associated with this stage of development and sex[7].

In this regard, most of the referrals to the team have to do with care for families in critical emotional situations, patients with chronic diseases that require hospitalization, and CA with suicidal behavior (figure 1), similar to what has been reported in the literature[24].

The following is an analysis of some relevant aspects of the main reasons for referral and diagnoses made by our Unit:

The **adaptive crisis** generated by a pediatric disease that requires hospitalization is reflected in diverse emotional symptoms such as anxiety, sadness, or anguish, as well as physical symptoms such as alterations in vital signs and circadian rhythms, headache, nonspecific alimentary and gastrointestinal symptoms, as well as other discomforts that favor the need for our intervention. This usually occurs in a context of clinical severity of CA, in acute life-threatening situations, or also due to the need for adjustment and adaptation to medium and long-term processes (such as the onset or decompensation of chronic disease). Therefore, the requested assessment also involves observation and support to the direct family support, who may need help regarding their role in the patient's care[5]. In this sense, there is a higher representation of diagnoses related to stress, particularly Adjustment Disorders, as well as Depressive and Anxiety Disorders (table 2).

Referral consultation due to **suicidal behavior** (figure 1) occurs as a more relevant demand from intermediate/intensive care teams and adult patient services receiving patients over 15 years of age. In our sample, most of the hospitalizations due to drug intoxication were adolescent females (41/46 adolescents and 40/46 females), consistent with what is reported in the literature[12,17,18].

According to local protocol, all hospitalized patients under 19 years of age who are admitted due to suspected suicidal behavior must be evaluated by our team within 24/48 working hours of admission. In the meantime, there must be a strict supervision of the patient by an adult caregiver who could be a direct relative; urine and/or blood samples are collected for toxicological tests and planning the management in case of anguish or agitation, while at the same time general interventions relevant to the medical severity are performed. The evaluation of these patients leads to particular management that entails reducing the risks for the patient and her/his family in the different hospital services.

Another frequent motivation for consultation is the suspicion of a **psychosomatic condition**, such as Conversion Disorder (functional neurologic symptom disorder) or Somatic Symptom Disorders (amplified pain syndrome, medically unexplained physical symptoms) (figure 1), requiring the ability to identify a disproportion between the symptoms that would be expected from a medical/neurological point of view and their manifestation, their intensity or the level of associated dysfunction. Simultaneously, clinical competence is required to evaluate and identify the interference of psychosocial conflicts that could give a more satisfactory or global explanation to the clinical picture. By definition, this requires a dialogue between experts, i.e. a coordinated and interdisciplinary teamwork to detect, diagnose, and initiate treatment in the hospital phase. In line with this reason for referral consultation, in our sample, there is a high prevalence (7.84%) of diagnoses in the category Somatic Symptom Disorders and Related Disorders as the main diagnosis (table 2).

Increasingly relevant, reflected in the significant

Table 1. General and sociodemographic data of the clinical sample.

Number of Consultations/ Hospital Admissions under 19 years old	N	Consultation Rate (%)
Year 2015	122 / 4673	2.61
Year 2016	193 / 4452	4.33
Year 2017	169 / 4213	4.01
Total	484 / 13338	3.63
Patient Sex	N	(%)
Male	208	43
Female	276	57
Total	484	100
Age grouped into categories	N	(%)
Premature and less tan 1 year old	96	19.8
Infants (1 year - 2 years 11 months)	12	2.5
Preschoolers (3 years - 5 years 11 months)	45	9.3
Schoolchildren (6 years - 11 years 11 months)	104	21.5
Early adolescent (12 years - 15 years 11 months)	158	32.6
Late adolescent (16 years - 18 years 11 months)	69	14.3
Total	484	100
Edad vs Sexo	N	(%)
Under 12 years old Men : Women	130 : 127 257 total	50.6 : 49.4
Teenagers Men : Women	78 : 149 227 total	34.3 : 65.6
Total	484	100

proportion of psychopathology detected, are eating behavior problems. The instance of medical hospitalization stands out as an opportunity to observe deviant eating patterns that manifest themselves throughout the development of the patient and that in this context alert when they interfere with the evolution of their underlying condition (e.g. patient with chronic oncological pathology), when restrictive or selective eating patterns without alteration of the body image are detected (an avoidant/restrictive food intake disorder can be diagnosed) that were not previously observed, or when a clear alteration of intake or purgative behaviors associated with an alteration of the body image is detected and/or revealed, subsequently diagnosing Anorexia, Bulimia, or a mixed or unspecified eating disorder (table 2).

Finally, another condition increasingly better identified by the intensive care pediatrician referred for our evaluation is **Delirium**, also known as Acute Confusional Syndrome. This diagnosis implies a qualiquantitative disruption of consciousness of acute or subacute onset with a cognitive deficit predominantly in attention. It is a condition more typical of extreme ages, frequently underdiagnosed in pediatric age with negative consequences for the medical evolution, so the suspicion from the pediatric team is crucial to address it appropriately[5,11]. In this regard, the management of behaviorally and neurologically complex patients with neuropsychiatric syndromes such as Delirium, or encephalopathies associated with catatonic syndromes or seizures, also demands effective communication of a wide variety of specialties and education on the integration of mind-body phenomena, which is another important topic for the development of the subspecialty.

The working model presented highlights the importance of the development of care and intervention in P-CLP where the insertion in the pediatric team and the multidisciplinary approach is fundamental in the integrative view of the individual, in this case, the child, her/his family, and their relationship with the process of illness that requires hospitalization. This contrasts with an intervention model aimed at solving only the demand for psychological or psychiatric care in the emergency, without getting involved with the team that is dealing with the hospitalized pediatric patient. As we work with hospitalized pediatric patients, emerging fields of disciplines are generated that merit expertise and development, thus creating increasingly specific interdisciplinary work areas such as Pediatric Psycho-Oncology and Perinatal Psychiatry.

Part of the work of this integrative approach is the psychoeducation of health teams, who, focused on the approach of the emerging medical pathology, often overloaded by it, or by unknowledge of the impact of the emotional experience of the disease, may not visu-

Table 2. Main psychiatric diagnosis according to DSM-51 criteria: Frequencies and percentages

Main Diagnosis	N	(%)
Neurological Devolopment Disorder	11	2,69
Autism Spectrum Disorder	8	
Attention Deficit Hiperactivity Disorder	3	
Schizophrenia Spectrum and other psychotic disorders	3	0,73
Brief Psychotic Disorder	3	
Depressive Disorders	100	24,50
Mayor Depressive Disorder	100	
Anxiety Disorders and Obsessive-Compulsive Diosrders	21	5,14
Specific Phobia	1	
Selective Mutism	1	
Panic Disorder	3	
Separation anxiety Disorder	3	
Generalized Anxiety Disorder	12	
Obsessive-Compulsive Disorder	1	
Trauma- and Stressor-Related Disorders	130	31,86
Adjustment Disorder	124	
Acute Stress Disorder	2	
Posttraumatic Stress Disorder	4	
Somatic Sympton and Related disorder	32	7,84
Somatic Sympton Disorder	13	
Functional Neurological disorder	19	
Feeding and eating Disorders	15	3,67
Anorexia Nerviosa	4	
Avoidant Resctrictive Food Intake Disorder	4	
Eating Disorder Not Otherwise Specified	7	
Sleep-Wake Disorder	2	0,49
Disruptive, Impulse-Control and COnduct Disorders	8	1,96
Oppositional Defiant Disorder	4	
Conduct Disorder	4	
Substance-Related and Addictive Disorders	9	2,20
Unspecified Alcohol Use Disorder	4	
Cannabis and Alcohol Use Disorder	1	
Alcohol, Cannabis and Cocaine Paste Use Disorder	2	
Cannabis use disorder	1	
Opiate withdrawal	1	
Neurocognitive Disorders	33	8,08
Delirium (Acute Confusional Syndrome)	24	
Major or minor neurocognitive disorder due to multiple etiologies (organic brain syndrome)	9	
Personality Disorders	2	0,49
Other Conditions that may be a focus oof clinical attention: Severe family Dysfunction / Domestic violence / Abuse / Munchaüssen	4	0,98
Without Psychiatric Pathology / Normal experiential reaction	24	5,88
No Data	16	3,92
TOTAL	410	100
Caregiver Assessment	N	%
Caregiver with Personality Disorder	2	2,7
Caregiver with Anxiety Disorder	3	4,05
Caregiver with Depressive Disorder	23	31,08
Caregiver with Adjustment Disorder with anxious or depressive symptoms	46	62,16
TOTAL	74	100

[1]DSM-5. (2014). Diagnostic and Statistical Manual of Mental Disorders, in Consultation Guide of Diagnostic Criteria (Vol. 5). The order of disorders is according to DSM-5 chapters and responds in general to the logical sequence of the stages of development throughout life.

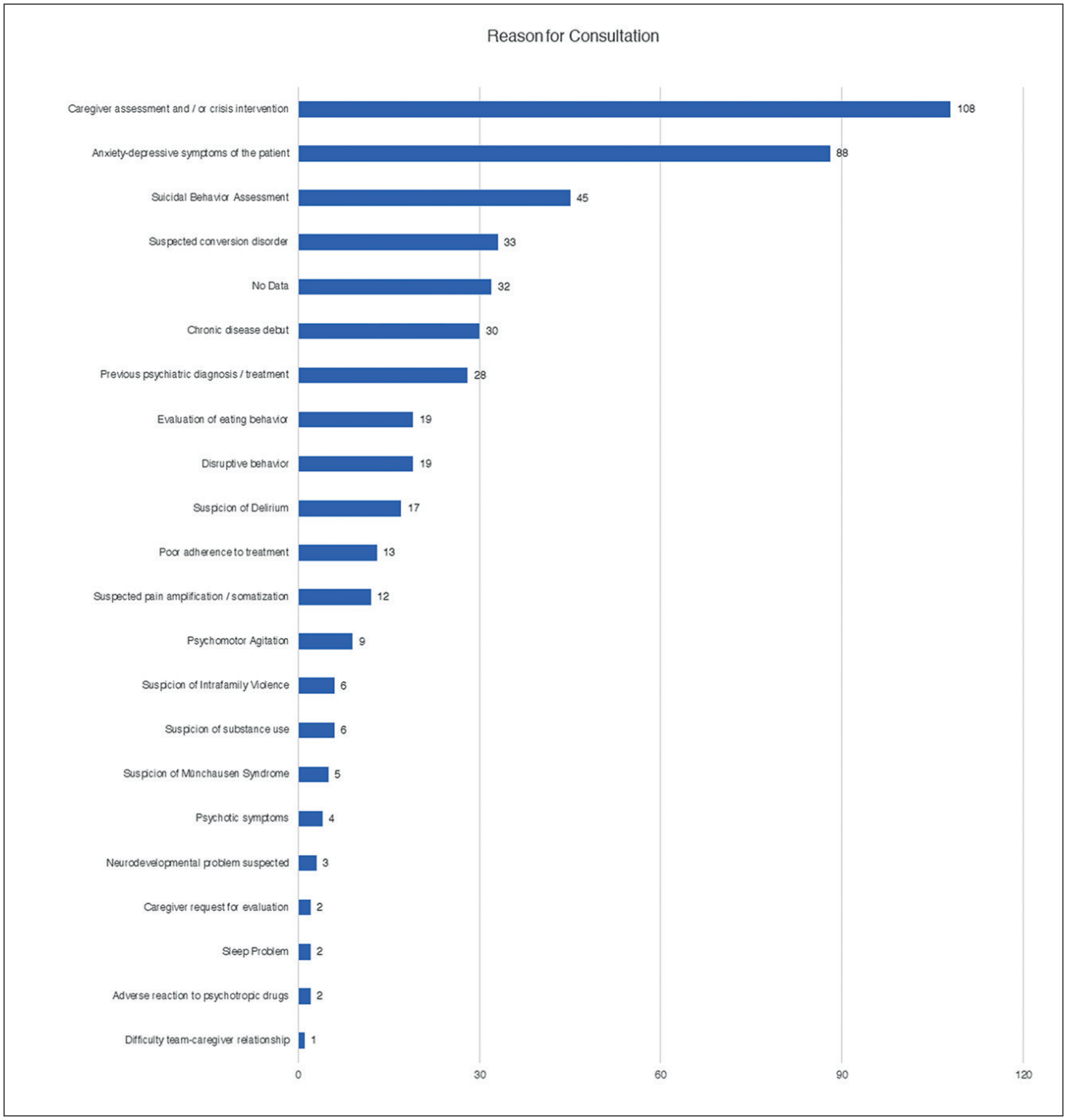

Figure 1. Consultation reasons from the various services and hospital units, in absolute numbers of cases.

alize the interference of socioemotional factors in the evolution of the basic condition. It is the role of the P-CLP team to socialize the scientific clinical evidence in favor of this intervention in the recoverability of the pediatric patient and her/his family.

The clinical environment of the P-CLP demands the development of competencies for a psychiatric evaluation which are particularly different in the practice of the specialty. Among others, it may imply both for the clinician and the patient and family, a greater demand for the adaptation to crisis intervention conditions given the severity of the patient; it may be limited in time or may not always have the appropriate privacy in the interview in the hospital context.

In this subspecialty, it is important to develop leadership skills and sustained work with the treating team, who oversees the patient's medical treatment and provides important information for the clinical interview[25]. Finally, the P-CLP professional must be able to integrate into the evaluation the reason for the referral, the patient's medical condition, what is observed by the treating team, and the demand of the patient her/himself and her/his parents regarding this evaluation, which is often not contemplated as a necessity in this context. The purpose of the evaluation is to make a formal diagnosis in the area of mental health and to define psychosocial aspects that may interfere in the adherence and expected improvement of the patient's basic medical condition.

The general hospital and its pediatric and adult services (under 19 years of age) are a new field of work for child and adolescent psychiatrists, which will develop hand in hand with teaching and care units, with professional supervision and emphasis on the skills and knowledge mentioned above. This requires the creation of subspecialization programs, capable of meeting the needs of the country's public health system in their training offer.

Conflicts of Interest

Authors declare no conflict of interest regarding the present study.

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