

PEDIATRICIANS' OPENNESS TOWARD COLLABORATIONS WITH PRIMARY CARE PSYCHOLOGISTS

APERTURA DE LOS PEDIATRAS HACIA LA COLABORACIÓN CON PSICÓLOGOS DE ATENCIÓN PRIMARIA

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ABSTRACT

The traditional healthcare system has turned toward an integrated model, leading to an increase in interprofessional collaborations where psychologists are considered primary care providers. This is the case in many primary care specialties, including pediatrics. This study explored the knowledge, use, and openness of 59 pediatricians with practice in Puerto Rico towards four pediatric screening instruments: Parents' Evaluation of Developmental Status, Pediatric Symptom Checklist, Family Psychosocial Screening, and Modified Children Autism in Toddlers. Pediatricians answered questions regarding these screening instruments as well as their openness toward collaborations with mental health professionals. Results showed that 86% of the pediatricians interviewed knew little/nothing about these instruments and only 48% reported using them. Additionally, 83% reported willingness to receive training in these instruments, and 76% preferred assistance from a psychologist. Results are twofold, pointing to a simultaneous lack of knowledge regarding the existence and use of psycho-social screening instruments, and a willingness to be trained in this area. Results are discussed in terms of the potential opportunity to integrate psychologists within pediatric practice settings.

KEYWORDS: Primary care psychology, interprofessional collaboration, pediatric screening.

RESUMEN

Con los cambios recientes en modelos de provisión de servicios, la colaboración entre psicología y medicina se hace cada vez más manifiesta. Esta integración cobra particular importancia en la población pediátrica. La utilización de instrumentos de cernimiento es una práctica que contribuye a la identificación de problemas y necesidades emocionales, que muchas veces pasan inadvertidas y por ende no reciben la atención requerida. Tomando en cuenta la importancia del cernimiento en la población pediátrica, exploramos conocimiento, uso y apertura de 59 pediatras hacia cuatro instrumentos de cernimiento pediátrico: Evaluación parental del desarrollo, Lista de Síntomas Pediátricos, Cernimiento Psicosocial Familiar y Lista Modificada para Autismo en Niños. Los resultados reflejaron que 86% de los pediatras conoce poco/nada sobre los instrumentos; sólo el 48% reportó utilizarlos. Además, 83% indicó estar dispuestos a recibir adiestramiento en los instrumentos y el 76% preferiría ser asistidos por un/a psicólogo/a. Aunque existe desconocimiento sobre los instrumentos en Puerto Rico, el nivel de apertura sugiere la oportunidad para adiestrar a los/as pediatras y/o integrar a psicólogos/as en escenarios pediátricos.

PALABRAS CLAVE: Cuidado primario, psicología, colaboración interprofesional, cernimiento pediátrico.

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In the United States as well in Puerto Rico, the traditional health care model has fallen short of addressing patients' needs as holistic beings (Schulte, Isley, Link, Shealy & Winfrey, 2004). Therefore, the current health care system is moving toward an integrated model in which mental health is integrated as part of the primary care services. As a result, psychologists are included as part of many primary care practices (Elder, 2005). This change has fostered a proliferation in interprofessional collaborations between pediatricians and psychologists that ensure timely and comprehensive interventions for both physical and mental health needs (Clay & Stern, 2005). In this integrated model of collaboration, psychosocial, behavioral, and emotional problems, as well as developmental delays can be detected during pediatric consultations. Early detection of these problems and delays help prevent severe and lasting complications as a child reaches his or her developmental milestones (Leiner, Balcazar, Straus, Shirsat, & Handal, 2007). Once pediatricians identify a child's needs, they develop their clinical management plan in an interdisciplinary team with psychologists (Mcmenamy & Perrin, 2002).

Although the integrated model of pediatric services is being increasingly implemented in many medical settings across the United States, there is little evidence of it being implemented in Puerto Rico. The purpose of this study was to explore pediatricians' knowledge, use, and openness towards the use of the following pediatric screening instruments: Parents' Evaluation of Developmental Status (PEDS), Pediatric Symptom Checklist (PSC), Family Psychosocial Screening (Kemper, 1994) and Modified Checklist for Autism in Toddlers (M-CHAT) for the Hispanic population. The study also explored pediatricians' need to receive additional training regarding developmental delay screening measures and their openness to receive the assistance of a primary care psychologist. The screening instruments were chosen based on their common use in primary care behavioral health practices, and their focus on biopsychosocial factors.

The Parents' Evaluation of Developmental Status (PEDS) (Glascoe, FP, 2013) is both an evidence-based surveillance tool and a screening test. It is also a tool for managing a wide range of developmental, behavioral and family issues. It can be used from birth to 8 years of age. Researchers found that the PEDS had 74% of sensitivity and 64% of specificity overall to detect developmental concerns in children receiving primary care health services (Limbos & Joyce, 2011). It is written at the fourth to fifth-grade reading level, which ensures that almost all parents can read and respond independently to the items. With ten short questions for parents, the PEDS helps professionals identify children at risk for school problems and those with undetected developmental and behavioral disabilities. The PEDS is available for Spanish speaking population. It was developed with 900 families from the United States, including a 14% of Hispanics in its norms (Glascoe, 2001).

The Pediatric Symptom Checklist (PSC) (Jellinek, Murphy, 1988) is a one-page questionnaire listing a broad range of children's emotional and behavioral problems for parents to provide impressions of their child's psychosocial functioning. It can be used from 4 to 8 years of age. This screening measure is intended to facilitate the recognition of emotional and behavioral problems so that appropriate interventions can be initiated as early as possible. The PSC consists of 35 items that are rated as "Never" "Sometimes," or "Often" present and scored 0, 1, and 2, respectively. The total score is calculated by adding together the score for each of the 35 items. Positive screens are those with scores above 27 for ages 6-18 and scores of 24 and higher for children ages 4 and 5. Navon, Nelson, Pagano and Murphy (2001) examined the utility of the PSC to detect behavioral symptoms in 570 children from 2-18 years of age at primary care clinics in Massachusetts. Results indicated that 144 (25%) children showed moderate to severe results with 2% showing severe emotional disturbances. Nevertheless, only 20% were receiving appropriate treatment for their

difficulties. In Spanish speaking population, the PSC demonstrate is a valid a reliable instrument designed specifically for the screening of psychosocial problems in children (Castro, Billick & Swank, 2016).

The Modified Children Autism in Toddlers (M-CHAT) (Robins, Fein, Barton, & Green, 2001) is a validated developmental screening tool for toddlers between 16 and 30 months of age. It is designed to identify children who may benefit from a more thorough developmental and autism evaluation. The M-CHAT can be administered and scored as part of a child check-up, and can also be used by specialists or other professionals to screen for developmental delays and autism. It consists of 23 questions in dichotomous format (yes or no) and has a high sensitivity to identify at-risk children. The Spanish translation of the M-CHAT was made in Spain and Mexico and is used worldwide for the Spanish speaking population, even though there are concerns about their reliability with subjects with a low socioeconomic status (Scarpa, Reyes & Patrikin, et al., 2013). The M-CHAT is one of the most frequently used pediatric screening instruments and research supports its utility to detect developmental difficulties (Robins, 2008). For this reason, health professionals are being trained in the use of this instrument.

Chlebowski, Robins, Barton and Fein (2013) examined M-CHAT use in a large pediatric sample of 18,989 children in the United States. Pediatricians referred potential children at risk for a developmental delay screening with the M-CHAT. Positive cases were referred for diagnostic assessment. According to their results, 54% of children met the criteria for Autism Spectrum Disorder (ASD). In addition, 98% presented clinically significant developmental delay concerns. Therefore, this study provides scientific evidence of the utility of the M-CHAT as a screening measure.

The Family Psychosocial Screening (FPS) (Kemper, 1992) has five principal domains: Family activities, drinking and drugs, family

health habits, parent's history of abuse, and help and support. It also assesses other risk factors for developmental and behavior problems. Under the first domain, there are three items that screen for parental depression. The second domain has seven questions that screen for parental substance abuse. The third domain has four questions assessing domestic violence. The fourth domain has eight questions assessing parents' own history of abuse. The fifth domain has several questions assessing social support.

The PEDS and M-CHAT are instruments directed toward identifying developmental changes, while the PSC and Family Psychosocial Screening evaluate more social and emotional aspects of development. Additionally, three out of the four chosen measures were available in the Spanish language and have been widely used with Hispanic populations in the United States (Castro et al., 2016, Glascoe, 2001 & Scarpa, 2013) The fourth measure, Family Psychosocial Screening, was translated for this study. Permission for this translation was received from Dr. Kemper.

METHOD

Participants

The total sample of the study consisted of 59 pediatricians, most of whom were male (52.5%, $n= 31$). The age distribution showed that 39% ($n= 23$) of the participants were 51-60 years old, while 20.3% ($n= 12$) reported being on the 41-50 age-range.

Most participants reported to work in a private office setting (72.9%, $n= 43$). Those who were Board Certified comprised a minority (29.2%, $n= 19$) within the sample, since a greater number of participants indicated not being certified (63.1%, $n= 41$). Additionally, more than half of the sample reported having obtained their medical degree in Puerto Rico (47.5%, $n= 28$) and the Dominican Republic (16.9%, $n= 10$).

TABLE 1.
Personal background information.

Variable	N	%
Gender		
Male	31	52.5%
Female	27	45.8%
Not available	1	1.7%
Total	59	100.0%
Age		
31-40	5	8.5%
41-50	12	20.3%
51-60	23	39.0%
61-70	6	10.2%
71-80	1	1.7%
80+	1	1.7%
Not available	11	18.6%
Total	59	100.0%
Work setting		
Private office	43	72.9%
Hospital	19	32.2%
Other	12	20.3%

Procedure

This study was approved by the Institutional Review Board of Ponce Health Sciences University. Following approval, the researchers contacted pediatricians' professional associations for recruitment purposes. Before data collection, each participant was informed of the nature of the survey and its potential uses, the measures to ensure confidentiality, and the voluntary nature of their participation. No compensation was given for participation in this study. Those who decided to participate signed an informed consent form that clearly stated the purpose of the study. Subsequently, they read specific instructions to complete a sociodemographic form and a questionnaire developed for this study called Uso Pediátrico de Instrumentos de Cernimiento (UPIC). Sociodemographic variables collected included: Age, gender, region of pediatric practice, highest educational degree, board certifications, the medical degree granting institution, current work setting, number of patients seen daily, and average amount of time per appointment. The sociodemographic sheet and the UPIC

took approximately 15-20 minutes to complete. All research materials were provided in Spanish and data were collected via self-report.

Instrument

UPIC (Pediatric Use of Screening Instruments in English) This instrument was developed for the current study. Its major purpose was to obtain descriptive data. The instrument consists of nine questions in Likert scale ranging from 0=Not at all to 5=Strongly, and six dichotomous (yes or no) questions with a qualitative section to allow pediatricians to elaborate on their answers. The first nine questions consist of assessment of knowledge, training and openness to receive assistance by a Primary Care Psychologist towards the following pediatric screening instruments: PEDS, PSC, M-CHAT and FPS. The rest of the questions consist of knowledge of other pediatric screening instruments, use of screening measures, and strategies utilized for pediatric assessment. This instrument allows for both, quantitative and qualitative analysis.

Design

This study had a non-experimental, cross-sectional exploratory-descriptive design. These types of studies are often conducted prior to developing experimental designs in order to identify the specific variables that would be manipulated in experiments. The design of the present study was chosen to facilitate participant recruitment and also to better portray pediatricians' knowledge.

Data analysis

The data collected were analyzed using the Statistical Package for Social Sciences (SPSS) version 20. Descriptive analyses were performed to interpret the data. Means and percentages were used to show results for the sociodemographic variables previously mentioned. Analysis of frequencies was used to show the results of the UPIC using percentages.

RESULTS

The analyses for the questions related to knowledge, training, and pediatric screening

instruments show that 67.8% of the participants knew little or nothing about the PEDS

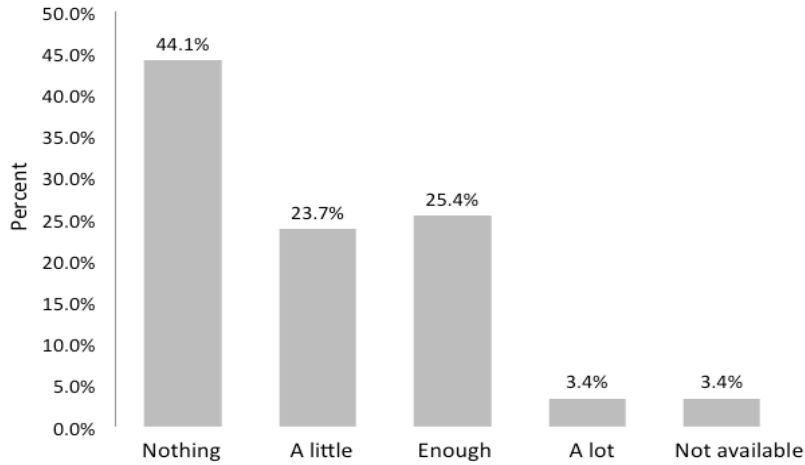


FIGURE 1.
Knowledge about the PEDS.

For the PSC, close to 70% of the sample had little or no knowledge of it.

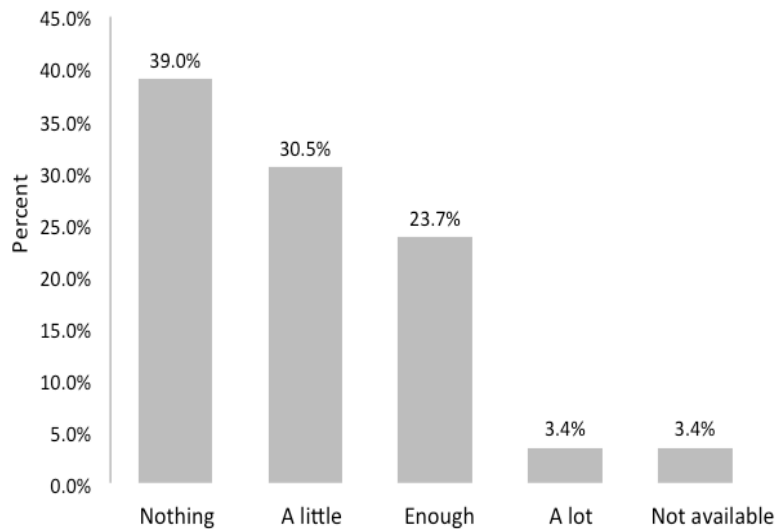


FIGURE 2.
Knowledge about the PSC.

Regarding the M-CHAT, 54.2% of the pediatricians reported knowing little or nothing

about it. However, 35.6% said to know enough about this instrument.

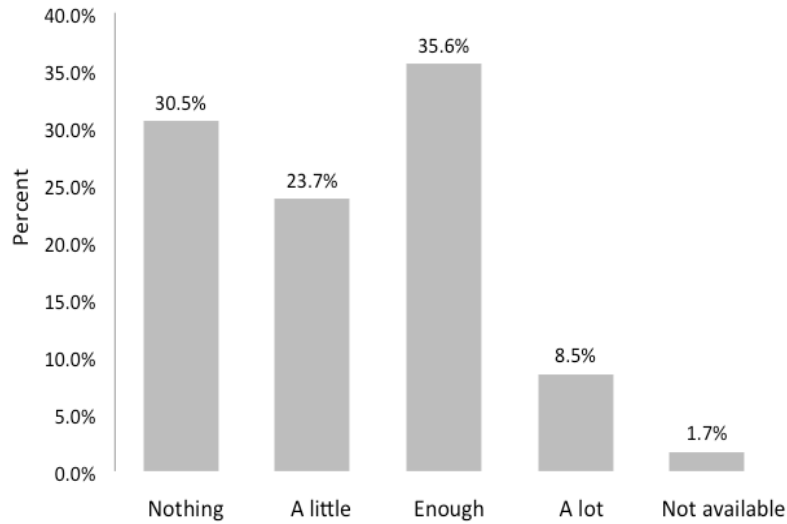


FIGURE 3.
Knowledge about M-CHAT.

Lastly, almost 80% of the sample did not know about the Family Psychosocial Screening instrument.

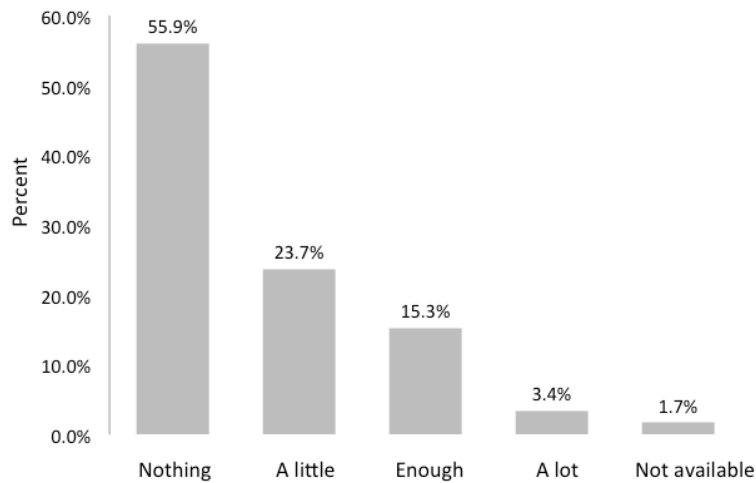


FIGURE 4.
Knowledge about FPS.

Most pediatricians 30.5% (n= 18) reported seeing between 21 to 30 patients daily in their practice. Twenty-four percent (n= 14) reported

seeing 11-20 patients daily; and 12% (n= 7) reported seeing 31-40 patients a day. Regarding the time dedicated to each patient

or consult, more than half of the sample (56%, n= 33) reported seeing the patients for approximately 11-20 minutes, followed by 17%, (n=10) who reported a span of 21-30 minutes per consult.

In terms of using pediatric screening instruments within their practice, 45.8% (n= 27) reported using them, while 47.5% (n= 28) reported not using any instruments. While the majority of pediatricians reported not using these screening measures, 66.1% (n= 39) stated that it was very important to incorporate screening instruments in the pediatric practice.

Lastly, our major findings show that 83.1% (n= 49) of the pediatricians reported to be willing to receive training in the use of pediatric screening instruments and 76.3% (n= 45) stated that they preferred to have the assistance of a primary care psychologist for the pediatric screening process.

DISCUSSION

The results suggest that pediatricians understand that there is a gap in knowledge regarding the existence (68%) and use of psychosocial screening instruments (66%). At the same time, results signal a willingness on the part of pediatricians to be trained in this area (83%). Furthermore, results suggest a high level of openness to integrate primary care psychologists into pediatric settings, and as part of their training (76%). The use of pediatric screening instruments allows health professionals to detect developmental delays in children. Therefore, they can implement preventive strategies in order to increase adaptive psychosocial functioning (Clay & Stern, 2005).

When we examine the results of studies carried out in the US (King & Glascoe, 2003, Dosreis et al, 2006 & Rydz et al., 2006), regarding the use and knowledge of screening instruments we found in our study that these pediatricians in Puerto Rico have a significant lack of knowledge of their existence and effectiveness. Hence, we could infer the need

for the implementation of these instruments in primary care settings. However, time restraints seem to be a major issue. Our data show that 30.5% pediatricians (n= 18) indicated seeing 21-30 patients daily, consistent with 100-124 patient visits per week in an average pediatrician setting in United States (Medscape, 2013). Additional data show that more than half of the sample of pediatricians (56%, n= 33) sees the patients for 11-20 minutes. These data also suggest consistency with the general amount of time that pediatricians spend with each patient in the United States. For the largest percentage of pediatricians (39% in 2012), 13-16 minutes per patient was the norm (Medscape, 2013). The amount of time per patient visit excludes the patient's time with a nurse practitioner, physician assistant, or medical assistant; it refers only time spent in the presence of a physician (Medscape, 2012). Our data also show that the pediatricians who reported having the assistance of another health professional, relied mostly on a nurse's collaboration (46.2%, n= 30). The literature indicates that in the US, the majority of the Pediatric Nurse Practitioners (PNPs) worked in primary care settings, and most had no inpatient roles. Interestingly, the greatest proportion of PNPs was employed in private practices (39%, n=254) (Freed et al., 2010). Although this is not currently a reality for us, as there are no PNPs in Puerto Rico, it is still a significant fact to consider. It would be appropriated to also offer additional training on screening practices to nurses working within pediatric settings.

In regards to the importance and frequency of using screening instruments, a study by Dosreis et al (2006) reported that most pediatricians (82%) routinely screened for general developmental delays, but only 8% screened for ASD. The main reasons reported for not screening were: Lack of familiarity with screening tools (62%); referral to a specialist (47%), or Lack of time (32%). However, most pediatricians (71%) did mention the necessity of screening due to an increase in ASD prevalence in the past years. King and Glascoe (2003) also found that the following

factors diminish the effectiveness with which many practitioners conduct developmental surveillance: Inappropriate screening practices; high thresholds for referral; misplaced concerns about causing parental anxiety; and unfamiliarity with local resources. As in our study, Ryzd et al (2006) found that, in turn, many primary care practitioners incorporate developmental surveillance that relies heavily on a pediatrician's intuition and clinical judgment. However, we believe that clinical judgment alone is not accurate enough to detect developmental and psychosocial delays. Therefore, it is crucial for parents to count on specialists who have undergone training that combines knowledge about childhood development, as well as skills using pediatric screening instruments, along with their clinical judgment. According to these authors, changes in screening practices have the potential to greatly improve the effectiveness of performing pediatric screening in diverse settings, thus improving the healthcare outcomes for children and their families.

It is critical that we point out that pediatricians' disposition to receive additional training and/or collaborate with other primary care specialists does not merely depend on their own will. Such initiatives rely on different sources such as joint efforts from the professional, public, and research community. Service system limitations must be overcome in order to increase awareness and familiarity with screening tools, provide sufficient time and resources, improve screening, and enhance provider education (Dosreis et al, 2006). For example, in a study by Schonwald et al (2009), a routine developmental screening program was implemented in urban primary care settings and their results showed that physicians reported feeling empowered afterwards. Physicians reported improved knowledge about child development and the importance of screening. They were positive about their ability to use and interpret the screening results and to arrange for further evaluation and/or care for their patients. However, when such adjustments are not

attainable, interprofessional collaborations between pediatricians and primary care psychologists may also prove to be successful, as the results of our study concluded. This alternative is supported by a recent investigation about the role of psychologists in integrated primary care settings. According to Nash et al (2012), the Health Care Reform is presenting psychologists with unprecedented opportunities to integrate their work in primary care settings. In integrating their behavioral healthcare into primary care, psychologists work within and as a part of primary care; they are not simply co-located in the primary care site. (Hunter & Goodie, 2010). Psychologists who possess a varied skill set (such as training in screening instruments/developmental & psychosocial aspects related to mental health) can make significant contributions to patient care in primary care settings. This may be considered a major challenge for pediatric specialists who still work under a classic healthcare model. Nonetheless, it represents great advantages since a team that addresses biological, psychosocial, and social health aspects assists the patient, making him/her the ultimate beneficiary of this system transformation.

Limitations and Recommendations

Limitations were identified in this study. One of them is the limited sample of pediatricians who answered the questionnaire. In addition, most of the respondents who answered the questionnaire had an average of 12 years of practice in pediatrics. This could suggest that the lack of knowledge is due to the time they were in training. Taking in consideration these limitations and the results in the study, there are recommendations that need to be addressed. One of them is the need to amplify the sample of pediatricians and include recent graduate pediatricians to assess if the knowledge of these instruments is the same. Additionally, it would be beneficial to offer continuing medical education to pediatricians in this topic. Also, training nurses to assist in the evaluation and scoring of these

instruments may serve as another dimension of integrated care and interdisciplinary collaboration.

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