



University of Pittsburgh

LEARNING RESEARCH AND DEVELOPMENT CENTER

N 1974

Dear Helen

I hope you haven't already ordered a copy of Alan's book - we wanted the privilege of sending you one.

I am also enclosing a copy of the paper on the reading curriculum which I mentioned to you.

I enjoyed my visit with you so much. As I told you then I very much regard you as a mentor and a major influence on my professional directions. I am grateful to you for these things.

When we make our next

trip to S. I. we will take
you up on the invitation
to let you know in advance
and hopefully get together
with both of you.

Regards

Donna

May 11th

Dear Helen -

Thank you, so much, for your wonderfully kind and generous - and validating - letter. I always have and will continue to value highly your regard.

I have spent some time in the past few years working in several settings as a psychologist. When I was at the CSU, I knew it was special & rare. Now, I know it is quite singular. A very unique language

was spoken there - of insights and human interaction and regard, of sharing & exploring that inspired learning and flexibility. I want to thank you, especially, for having nurtured such an environment & for having made me feel so welcome in it. My experiences there have enriched my life for all time.

We continue to live the suburban life, complete with little league baseball. Katie (14) and Will (9) are thriving. Katie is a reader & writer,

an excellent student, except
 for math. She plays flute in
 the band & is an avid 4-Her.
 We have a local farm on the
 UCI campus. Her last lamb was
 adopted by Disneyland for
 their petting zoo. Will lives
 for Nintendo & imaginary herds.
 He has some learning disabilities
 & a measure of hyperactivity &
 distractibility — a perfect
 candidate for CSU. I wish
 Donny could have seen him.

I hope you & Jack are well.
 I have heard him on the Michael
 Jackson radio program each
 year on the anniversary of
 Cheri's birth.

Best regards & lots of love,

Dina



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1/4/22/73

Dear Helen

It was kind, and generous of you to give of yourself and your time.

I came last Thursday to tell you in person, but you were gone for the day.

All three profs were so appreciative and enthusiastic; and students were quoting you at the following two sessions. you enriched the course.

Thanks again, and I'll get your copies of Problems in Current Pediatrics back to you soon.

Sincerely,

Margaret

Raccoon

A mischievous and intelligent animal, the Raccoon has adapted to man's civilization with little trouble. Caught young, they make reasonably affectionate pets, but they thrive better out-of-doors. Coons seem to have a sense of humor, and young ones clown all the time.

An accomplished swimmer, this self-reliant animal feeds on fish, crayfish and mussels as well as corn, mice, insects, fruit and nuts. In fact, Raccoons love to eat, and are constantly foraging for food which, for some unknown reason, they wash in water two to three times before eating.

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*For Helen Gofman MD
my favorite teacher
with continuing appreciation
and love Christel*

Interprofessional Collaboration: Who Is Doing It? Who Isn't?

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ABSTRACT. A questionnaire about practice in the area of physician-educator collaboration and behavioral-developmental pediatrics was obtained from 239 California primary care pediatricians. The survey examined the characteristics of physicians who do and do not collaborate, as well as their perceptions of the advantages of and barriers to interprofessional collaborations. The results indicated that, whereas most (88%) respondents indicate that communication among educators and physicians is sometimes or frequently useful when patients have behavioral, developmental, and chronic health disorders, only 17% actually communicate frequently by telephone or meeting with educators. The characteristics of physicians who collaborate the most frequently include factors such as small groups or solo practices in rural areas, use of routine developmental screening, training in working with teachers, training in behavioral and developmental pediatrics, and higher estimates of the number of patients with behavioral and developmental disorders in their practice. The relationship between physician characteristics and frequency of collaboration is analyzed and discussed. Physicians' perceptions of the collaboration process and suggestions for improving collaboration are discussed. *J Dev Behav Pediatr* 9:134-139, 1988. Index terms: *physician-educator collaboration, school problems, developmental-behavioral office practice.*

Over the past decade, pediatrics has focused increasingly on what is called the "new morbidity."^{1,2} The term generally implies an expanded list of child health care needs, and it includes chronic illness and developmental disabilities, as well as psychosocial, behavioral, and educational problems. The evaluation and management of these aspects of child health are greatly enhanced when professionals work together. Educators and physicians share concerns regarding the impact of developmental disabilities and their treatments on classroom behavior and learning.² Recent reviews of interprofessional collaboration indicate that physicians and educators consider collaboration necessary and desirable to achieve optimal care.³⁻⁵

Despite mutual concerns, little is known about interprofessional collaboration between primary care pediatricians and educators.⁶ What percentage of primary care pediatricians collaborate with educators? What factors differentiate those who collaborate from those who do not? Do physicians' perceptions of educators influence the process of collaboration? Is the low recognition of developmental disabilities by pediatricians in any way

related to obstacles to collaboration?

This paper reports the results of a written survey of California pediatricians. The survey attempted to identify current perceptions related to identification and management of children with developmental problems. It addresses, in depth, two areas of concern. (1) What are the characteristics of primary care pediatricians who do and do not collaborate? (2) What are their perceptions of the barriers to and advantages of collaboration, and what suggestions do they offer for overcoming barriers to collaboration? The implications of these data, as well as specific suggestions for enhancing interprofessional collaboration of physicians and educators, are discussed.

METHODS

Between December 1984 and January 1985, a questionnaire was mailed to 1503 pediatricians in California. Alternate names were chosen from a current American Academy of Pediatrics (AAP) list of 3006 pediatricians in the state. Questionnaires were returned by 305 physicians, a response rate of 20.2%. From this group, 239 (78%) were selected who described their practice as "50% or greater primary care pediatrics." Data obtained from this subgroup were analyzed and are presented in this paper.

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The questionnaire contained both objective (checklist) and subjective (open-ended) questions. The questions were arranged in four topical sections.

The first section requested *practice and demographic* data about the respondents, including: (1) year graduated from medical school, (2) location of practice (rural, suburban or urban), (3) type of practice (solo, small group, large group, agency), (4) number of patients seen per day, (5) subspecialty interest, if any, and (6) training in working with teachers.

The second section requested a checklist or one-word responses to questions about *approach to assessments*. They were: (1) number of patients seen per year with concerns about behavior and/or developmental issues, (2) approach to routine developmental screening using a standardized developmental screening test (% of children screened during infancy, preschool, school age, and adolescence), (3) approach to evaluation of suspected developmental problems (including frequency of request of exchange of information with school, phone call to or from teacher, meeting school personnel, referral to school for evaluation), and (4) estimate of the percentage of patients seen in the practice with identified developmental or other handicapping conditions.

The third section requested information about *physician-educator collaboration*. Checklist responses to the following two questions were obtained. (1) How frequently do you communicate by phone or meeting with a teacher about a child in your practice? (2) How useful have you found communication with teachers of children in your practice with chronic health, developmental, or learning problems?

The fourth section of the questionnaire requested short answers to three questions about the physician's *perceptions of the usefulness of collaboration* with teachers and schools. (1) In your experience, what are the advantages of working with school personnel (teacher, school nurse, etc.)? (2) In your experience, what are the disadvantages of working with school personnel? (3) What kind of information or resources would be helpful to you in communicating with schools?

Percentages were tabulated for all objective (closed-ended) questions. Responses to open-ended questions were analyzed using a four-step procedure. First, responses were independently read, and a classification to fit the variety of responses was jointly devised. After discussion, agreement was obtained on criteria for inclusion of a response in each category. The data analyst then classified all responses, and the author independently classified a sample of approximately one-tenth of the responses. Ninety percent of the classifications were found to be in agreement. After discussion of discrepancies, criteria were further clarified, and 95% agreement was obtained for category assignment.

Correlations between ratings of frequency and usefulness of collaboration (Section 3), and the demographic practice approach to assessment characteristics (Sections 1 and 2) were made using χ^2 whenever expected numbers exceeded five in all N cells of an $N \times N$ table. When this criterion was not met, cells were collapsed to 2×2 tables, and a Yates correction of Fisher's exact test was used as a test of statistical significance.

The term "collaboration" was designated as including personal communication between educator and physician by telephone or meeting, since it appears that true collaboration is much more likely to occur under these circumstances than by one-way communication, such as exchanging written reports.

RESULTS

Demographic and Practice Characteristics

The respondents represented a 50-year span in time of graduation from medical school. Responses fell into a normal distribution, although mildly skewed to the more recent years, with the largest number of respondents (36%) graduating between 1970 and 1979. The mean year of graduation was 1966, with a standard deviation of 11 years. The majority indicated that they practice in urban (54%) and suburban (29%) areas; 16% practice in small towns or rural areas. Over one-half of the pediatricians described their practice as solo (23%) or small group (32%). In addition, 28% practice in large groups and 10% are in academic or institutional settings.

The average number of patients seen per day range from 5 to more than 60; the mean number of patients seen per day was 26 with a standard deviation of 9.2. Thirty-three percent of physicians reported seeing 20 or fewer patients per day and 49% see 21-30; only 15% see 31-40 per day, and 3% see more than 40 patients per day. Subspecialty interests were indicated by 78 of the 239 respondents (33%). Eight respondents indicated a specialty in behavioral-developmental pediatrics.

Twenty-two percent of physicians had received training in working with teachers, 54% had attended at least one postgraduate course in behavioral-developmental pediatrics, and 81% stated that they would like more information about the procedures used by schools in identifying and evaluating children's educational needs.

Approach to Behavioral-Developmental Assessment

Frequency of Behavioral-Developmental Concerns in Practice. The mean number of children seen per year with behavioral, developmental, or school performance concerns was 111.5; 35% reported seeing 25 or fewer such patients per year and 47% see between 26 and 100. Only 7% see 101-200, and only 9% see more than 200.

Frequency of Routine Standardized Preschool Developmental Screening. The mean percentages of infants and preschoolers receiving routine screening were 42% and 37%, respectively. However, 47% of the respondents screened 10% or fewer infants in their practices, and 50% screened 10% or fewer preschoolers. Only 19% and 18% routinely screened more than 50% of infants and preschoolers.

Frequency of School Contact When Physician Suspects a Developmental Problem. A high percentage (95%) of the physicians exchange information with schools in some way at least "sometimes," and 66% do so "usually" or "always." Phone contact is reported as "usually" or "always" by 31% of the physicians, whereas 25% reported "rarely" or "never" contacting schools by phone about a patient with a suspected developmental problem. Very few pediatricians meet

with the school to discuss children with developmental problems. Only 6% reported "usually" or "always," compared with 81% who "never" or "rarely" attended school case conferences. About one-third stated that they "usually" or "always" referred children with suspected developmental disabilities to schools for evaluation. None of the respondents reported that they never communicate in any way with the schools when a child in their practice is suspected of having a developmental problem.

Prevalence of Children with Learning Disabilities in Practice. The mean percentages of learning disabled children in these practices was 5.9% with a range of 1% to 50%. Seventy-five percent of respondents estimated that 5% or fewer of their patients have learning disabilities, and 37% of all respondents perceive that only 1% or 2% of the children in their practice have learning disabilities. Another 17% of physicians estimated their learning disabled patients to be 6–10% of their clients; 7% rated their learning-disabled population as greater than 10% of their practice.

Prevalence of Children with Other Developmental Disabilities in Practice. The mean percentage of children with other developmental disabilities was 5%, with a range of 0–50%; 83% of physicians reported 5% or less. Twelve percent report 6–10%, and 4% report 11% or greater. Prevalence figures for learning disabilities and other developmental disabilities were reanalyzed after exclusion of the specialists in behavioral-developmental pediatrics as a possible source of bias. Prevalence figures were all within 1% of the prevalence figures for the entire sample.

Physician-Educator Collaboration

Ratings of Usefulness and Frequency of Communication with Teachers. Mean ratings for usefulness and frequency

(scored by respondents on a scale of 1–4: never, rarely, sometimes, and frequently) were 3.3 and 2.7, respectively. "Frequently" useful and "sometimes" useful were indicated by 44% and 44% of respondents, respectively. Seventeen percent of physicians communicate with school personnel by phone or meeting "frequently" and 46% "sometimes."

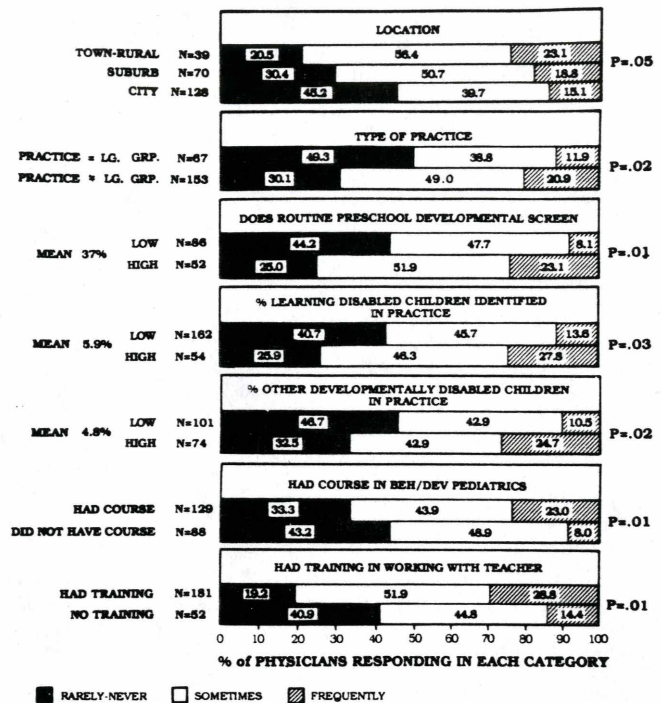


FIGURE 1. Relationship between physician demographic, practice, and training characteristics and frequency of communication with schools.

TABLE 1. Correlations of Practice Characteristics with Ratings of Frequency and Usefulness of Communication with Teachers

Characteristic	n	Frequency (p)	Usefulness (p)
Year graduated	231	0.22	0.90
Location of practice	237	0.05 ^a (0.05 ^a)	0.60
Type of practice			
Solo	56	0.22	0.26
Small group	78	0.52	0.72
Large group	69	0.02 (0.01 ^a)	0.11
Institution	8		
Academic	15	0.58	0.18
Patient visits per day	232	0.90	0.18
Routine infant developmental screen	132	0.09 (0.11)	
Routine preschool developmental screen	139	0.01 ^a (0.01 ^a)	0.87
Exchange information with school	236	0.00 ^a	0.00 ^a
Phone school	235	0.00 ^a	0.00 ^a
Meet with school	232	0.07	
Frequency learning disability in practice	218	0.03 ^a (0.03 ^a)	0.62
Frequency developmental disability in practice	184	0.02 ^a (0.02 ^a)	0.44
Had course in behavioral/developmental pediatrics	209	0.01 ^a (0.01 ^a)	0.85
Had training in working with teacher	235	0.01 ^a (0.01 ^a)	0.60
Would like more special education information	218	0.08	0.20
Patients with behavioral developmental problems seen per year	222	0.10 (0.13)	0.36

^a Statistically significant. Values in parentheses = correlations for group, excluding eight specialists in behavioral-developmental pediatrics.

Correlations of Demographic and Practice Characteristics and Assessment Procedures with Global Ratings of Frequency of Communication and Usefulness of Communication with Teachers (Table 1). A number of characteristics were significantly correlated with physician ratings of frequency of school contact, but only two were correlated with physician ratings of usefulness of collaboration ("exchange information with school when child has a suspected developmental problem" and "phone school when child has a suspected developmental problem").

Factors significantly ($p < 0.05$) related to frequency of collaboration included: (1) practice in rural or suburban communities, (2) practice in solo or small group practices, (3) the use of routine standardized developmental screening for preschoolers, (4) the prevalence of diagnosed learning disabilities and other developmental disabilities in the practice, and (5) training in behavioral/developmental pediatrics and training in working with teachers (Fig. 1). Other less strong correlations included perceived frequency of visits for behavioral-developmental or school problems ($p = 0.10$), and frequency of standardized infant developmental screening ($p = 0.09$). Correlations between physician and practice characteristics were reanalyzed after exclusion of specialists in behavioral-developmental pediatrics. Findings were nearly identical, indicating that results were not skewed by the presence of specialists in the sample.

Open-Ended Questions

In response to open-ended questions about collaboration, the pediatricians spontaneously reported advantages and barriers to collaboration and their suggested solutions for improving interprofessional collaboration.

Physicians felt strongly that the school is an important source of information about the child. Seventy-four percent of physicians cited this advantage to communication. Additionally, 17% reported that they believed collaboration provides the best care for the handicapped child. Only 4% cited the importance of information going from the physician to the school, and only 3% commented on the usefulness of teacher observations in monitoring the effectiveness of medical treatments.

The most frequent disadvantage to collaboration cited was in the area of teacher attitude problems (52%). Typical comments referred to perceived disinterest, defensiveness, or biases. Thirty-two percent cited time or distance barriers, and 17% reported that teacher misinformation, such as information about dietary, optometric, and other controversial interventions, discouraged them from efforts to communicate. Fifteen percent stated that there were no significant disadvantages or barriers.

Physician responses to the open-ended question about resources and solutions to communication problems suggested that few workable solutions seemed evident to them. Responses were sparse and vague, and did not logically follow described obstacles. Thirty-seven percent did not respond to this question, despite sometimes lengthy responses to other open-ended questions. Another 25% commented on the need for solutions to the problem, but had none to offer. Fifteen percent suggested that results of school testing should be sent to physicians and 13% felt

that a directory of school programs would be helpful. Six percent suggested that standardized forms for exchange of information be developed. Interestingly, only 5% suggested additional teacher training, and only 3% suggested additional physician training. There was no significant difference in the profiles of responses in this section between the "communicator" and "noncommunicator" groups.

DISCUSSION

Characteristics of the Population

Our findings that many pediatricians underrecognize parental concerns about behavioral-developmental issues, fail to utilize standardized developmental screening tests, and fail to make early diagnoses and interventions for developmentally disabled children, confirms previous work. The new information provided by our data is the strong correlation between physician characteristics of collaboration versus noncollaboration and the above practice characteristics.

Recent studies have shown that as many as 70% of parents surveyed in pediatric waiting rooms⁷ have primary concerns about developmental and behavioral issues, and that 20% of children are failing or at risk for failing in school.⁸ Most estimates by our respondents regarding behavioral/developmental concerns were significantly lower than these. Apparently, parents' concerns about behavior and development are being underrecognized as significant problems.

The low incidence of pediatricians performing routine developmental screenings is also a concern. There appears to have been little improvement in the number of children being screened, despite recent pediatric literature substantiating the importance⁹ of developmental screening in identifying delays.^{10,11} American Academy of Pediatrics educational literature has emphasized this important aspect of pediatric practice,¹² and there have been numerous studies that show the validity of even shorter,¹³ and more sensitive and specific¹⁴ screening methods.

Respondents' estimates of the numbers of children with identified developmental disabilities in their practices were lower than the generally accepted figures,¹⁵ suggesting that physicians are failing to make early diagnoses and interventions.

Our sample population may not be representative of the practicing pediatricians in California because of a response rate of only 20.2%; generalizing from the survey must be done with caution. However, since the respondents were willing to take the time to complete the questionnaire, they probably represent a subset of pediatricians with interests in developmental and behavioral issues. The respondents represent diverse demographic characteristics in terms of year of graduation from medical school, location and type of practice, and numbers of patients seen per day. If our population represents a subset who are relatively more aware and concerned about developmental and behavioral issues, the findings of the study become more significant and perhaps underestimate rather than overestimate the problems described.

The physician ratings of frequency and usefulness of collaboration indicate a discrepancy between the common

belief that collaboration is useful and the much less common *practice* of collaborating. Three possible explanations for this discrepancy may be: (1) physicians underrecognize the frequency of children with developmental or school problems in their practices, (2) despite the usefulness of collaboration, major disadvantages discourage physicians from collaborating frequently, and (3) communication is done mostly in writing, rather than by phone or meeting. It is much more likely that true collaboration occurs when contact is by phone or meeting, rather than by written communication. The data in this paper support the first and third but not the second possibility.

Relationship between Physician Characteristics and Frequency of Communication: Collaboration Versus Noncollaboration Profile

It would appear that the physicians who are more effectively recognizing children with developmental problems in their practices are also more routinely making contact with the schools. Of interest is the fact that the year of graduation from medical school was not correlated with frequency of collaboration, despite recent recommendations by the American Academy of Pediatrics Education Committee that greater emphasis be placed on developmental and behavioral issues during training. Based on our study sample, there is no evidence that more recently trained graduates collaborate more. Also, the number of patients seen per day is not a factor which correlates with frequency of communication, suggesting that lack of time may not be a significant reason for noncollaboration.

Objections might be raised regarding our conclusions about the correlations between practice characteristics and frequency of collaboration. Other factors may determine the prevalence of developmental-behavioral problems in a practice. (For example, the prevalence of developmental disabilities might be lower in a practice than in the population as a whole, particularly if many of the disabled children in the area receive their primary care in specialty centers, or do not receive medical care). Also, a physician's estimates of the prevalence of learning-disabled children will be determined to some extent by the percentage of the practice that falls into the school-age group. However, interpreted as group data, these correlations present compelling evidence for the *relationship between underrecognition* by physicians of developmental-behavioral issues (including the importance of developmental screening for early identification) and lack of comprehensive *collaborative management* of identified behavioral and developmental disorders.

Physician Ideas About Advantages/Disadvantages of Collaboration and Solutions to Communication Problems

The physician statements about the advantages of collaboration suggest that many physicians have not been actively involved in collaborative management of patients with schools. Although physicians appreciated the importance of the information that they receive from teachers, few physicians cited the value of utilizing teachers to help monitor the effects of important medical treatments, such

as anticonvulsants or stimulants, despite previous evidence regarding the need for this.¹⁶

Disadvantages to collaboration reported in this survey are consistent with previous studies that have demonstrated that both educators and physicians accuse the other of attitude problems.¹⁷ Pediatricians rarely cited faulty perceptions or misinformation among physicians relative to educational planning or interventions.

These examples suggest a lack of effective communication or sharing of information between professions. They also point to the need for training programs that help provide more "common ground" between physicians, educators, and parents in terms of mechanisms for communication, evaluation procedures, terminology, and understanding goals and methods of treatments. A few such programs have been developed and are proving useful in bridging the communication gap^{*18-20} (also, M. Hudler, C. Cranston, and G. Ulrey, unpublished data). Increased emphasis on training in interdisciplinary collaboration during both pediatric residency and education training, with direct contact between physicians and teachers early in their educational careers, has been advocated,¹⁷ but this is still not a common feature of physician or teacher training. Support for such programs should be given high priority by medical and educational training institutions and funding agencies.

The sparse and vague responses to the question about solutions to communication problems, the fact that physician or teacher education was rarely cited as a need, and the finding that there were no significant differences between responses to any of the three open-ended questions by "collaborators" and by "noncollaborators," suggest that physicians generally may have given little thought to specific issues of physician-educator collaboration. For example, no one suggested establishing a regular "telephone hour" to make it easier to contact busy professionals. There was no discussion of ways that time spent on the phone or at school meetings might be financially compensated.

Most respondents display a stereotyped view of advantages, disadvantages, and solutions. Physician perceptions of educators and their attitudes toward collaboration are not shown to be correlated with the frequency of collaboration.

IMPLICATIONS

The data suggest that: (1) physicians who collaborate rarely might benefit from a review of their approach to behavioral-developmental issues in their practice, (2) efforts to improve physician-educator collaboration are not likely to be successful unless they also address the need for improved physician training in basic concepts of behavioral-developmental pediatrics, and (3) the negative attitudes of members of both professions do not seem to be major determinants of collaboration versus noncollaboration. Early exposure between educators and physicians during their training and problem-solving workshops for groups of practicing educators and physicians are recommended. Physi-

* ED/MED Training Module. Instructor's Guide (available from University of California, Davis, Health Sciences Library).

cian training should emphasize a greater knowledge base in behavioral-developmental areas, as well as in communication techniques and interdisciplinary collaboration.

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8/30/88

Dear Helen,

It was so nice to hear
from you. Enclosed is a copy
of the paper. I don't have any
data on training programs, unfortunately.

I hope to see you soon, maybe
at the fall meetings if I can get away - (I'll
be in Greece till Oct 2. '1)

Love,

Christel

MEMORANDUM
OF CALL

TO:

Helen

☐ YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

OF (Organization)

☐ PLEASE CALL ☐ PHONE NO. _____
CODE/EXT. _____
☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU
☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE

Was delighted in your
article on WCC & dev. assess.
& anticip guidance.

Here's an article by a couple
of my friends. Is this an
example of recreating the
wheel or what!!? KA!

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E225

The Well Child Care Check Sheet

An Aide in Office Implementation of Preventive Pediatric Care

Dorothy Davies Johnson, M.D., FAAP, Barbara Lee Jones, R.N., P.H.N., M.N., P.N.P.

THE WELL CHILD CARE CHECK SHEET is being used in San Diego's University Hospital Pediatric Primary Care Center and the San Diego County and Yuba County Department of Health Child Health Conferences, as well as the conjoint UCSD-S.D. DPH Southeast Health Center Pediatric Clinics for which it was designed. It may be adapted directly for any practice. However, the specific tasks included should be reviewed carefully for applicability to the given practice. Such a form is most useful when it relates to the special character and environment of the population served in the practice, as well as the priorities and capacities of the staff. Involvement of office staff in selection of the items included in such a check sheet ensures better staff understanding of the tasks of well child care and more thoughtful implementation of those tasks.

In selecting the *developmental* tasks for inclusion, one may wish to adapt to sociocultural characteristics of the populations served, or to vary the number of items included according to office capacities, and one may wish to specify that some skills would be assessed in the course of the physical exam rather than the interview. As with any screening process, it is important that its use is accompanied by appropriate follow-up diagnostic clarification and remediation when indicated.

The *anticipatory guidance* list is only as helpful as the pertinence of the topics it suggests. It is important to adapt to the special characteristics of the patient population served (financial capacities, culturally defined family roles and expectations, dietary preferences, family stability, work patterns, and child care availability). In addition, the climate and geography, the relative urbanization, the hous-

ing characteristics, and the contiguity of residences with highways, pools or larger bodies of water, and industry all affect guidance needs. In developing the list demonstrated here the Public Health Nurse's experiences in counseling pediatric clinic families within their own home environment played a significant role in topic selection for the list.

Recommendations for preventive care *procedures* often seem well standardized. However, ongoing developments in such fields as immunizations and early metabolic screening tests, as well as increased experience with such "short-cut" tests as screening urine cultures, will result in changes in recommendations. Indeed the characteristics of the patient population and the environment affect the selection of procedures for routine implementation. In the community for whom this Well Child Care Check Sheet was initially designed, tuberculosis is still endemic, the water supply is not fluoridated, and a Department of Health study has indicated that significant elevation of blood lead levels is not present in community residents.

Abbreviations

DDST	Denver Developmental Screening Test
BP	Blood pressure
Fd	Feeding
Fl	Feeling
Fm	Fine motor
HC	Head Circumference
Hct	Hematocrit
Hgt	Height
L	Language
M	Gross Motor
MMR	Measles, Mumps/Rubella Immunization
OPV	Oral Polio Vaccine
PPD	Tuberculin Test, Purified Protein Derivative
S	Social
Sa	Safety
Sx	Symptomatic Therapy
UA	Urine Analysis
Wgt	Weight

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WELL CHILD CARE CHECK SHEET

Age	DEVELOPMENTAL TASKS S = Social Fm = Fine Motor L = Language M = Gross Motor	White Bars = Age during which 75-100% of children accomplish task per Denver Devel. (*)								ANTICIPATORY GUIDANCE		PROCEDURES Circle if Done	INIT DATE
		Check Age in which task accomplished								Check if Discussed			
		0	4w	8w	4m	6m	8m	10m	12m				
2 to 4 wks	S Cuddles* Fm Follows to midline Equal movements L Responds to sound M Moro* Primitive step* Neck/elbow flexor tone* Palmar grasp*									Sa Car restraints Bathing Bedding Fd Breast feeding Preparation of formula Propping, burping Volume expectations Sx Nasal hygiene Skin care Fl Parents & siblings	Hgt Wgt HC PKU UA		
6 to 8 wks	S Smiles Fm Palmar grasp fades* L Listens to bell M Lifts head (prone)									Sa Falls (rolls over) Car restraints Bathing Fire retardant clothing Small objects out of reach Fd Formula or breast Future solids Sx Thermometer use Fl Sleep	Hgt Wgt HC DPT-1 OPV-1		
3 to 4 mos	S Smiles spontaneously Fm Hands together Follows 180° L Squeals, laughs, babbles M Rolls over Head steady, sitting									Sa Crawling: . objects out of reach stairway "gate" Risks of walkers, jumpers Fd Review solids Spoon Formula or breast Sx Diarrhea Fl Behavior expectations	Hgt Wgt HC DPT-2 OPV-2		
5 to 6 mos	S Smiles at mirror* Fm Grasps rattle Reaches for object L Coos* M Prone holds chest up									Sa Review crawling: objects, electric outlets, floor heaters Food aspiration (beans) Fd Milk Food selection Feeding techniques Sx U'RI Review Fl Stimulation-consistency	Hgt Wgt HC DPT-3 OPV-3 (optional)		
7 to 8 mos	S Feeds self crackers Fm Raking grasp Cube hand to hand L Turns to voice M Sits Bears some weight									Sa Review Fd Review Sx Ear Infection Fl Separation anxiety	Hgt Wgt HC Optional Visit		
9 to 10 mos	S Bye-bye* Peek-a-boo Fm Thumb-finger grasp Looks for hidden object* L Mama-Dada, non-specific Imitates speech sounds M Stands holding on									Sa Review poisons (Ipecac) Fd Finger feeding Weaning Feeding techniques Sx Dental hygiene Fl Experimentation, separation Exploration	Hgt Wgt HC HCT Sickle PPD Ipecac		
11 mos to 1 year	S Kiss* Interactive games* Pat-a-cake Fm Bangs 2 cubes L Mama-Dada, specific M Walk with help Stand alone momentarily									Sa Streets Climbing (poisons, falls, windows) Fd Decreased appetite Eating habits Sx Vomiting Review Fl Independence testing Consistent limits	Hgt Wgt HC Optional Visit		

* Denotes items which are not included in Denver Devel. data.

Age	DEVELOPMENTAL TASKS S = Social Fm = Fine Motor L = Language M = Gross Motor		White Bars = Age during which 75-100% of children accomplish task per Denver Devel. (*)								ANTICIPATORY GUIDANCE		PRO- CEDURES Circle if Done	INIT / DATE
			Check Age in which task accomplished								Sa = Safety Sx = Symptomatic Rx	Fd = Feeding Fl = Feeling		
			12m	18m	2y	2½y	3y	4y	5y	6y	Check if Discussed			
1 year to 18 mos	S	Drinks from cup Plays ball Uses spoon									Sa	Car restraint Window screens Running into danger Scalds	Hgt Wgt HC	
	Fm	Scribbles spontaneously Tower 2 cubes									Fd	Complete weaning Appetite slump	UA	
	L	3 words (other than Mama) Jargon*									Sx	Mouth-to-mouth resuscitation	MMR (≥15 mo.)	
	M	Walks well Crawls up steps* Stoops and recovers*									Fl	Imitation of adults Tantrums Strong preferences		
18 mos to 2 years	S	Imitates* Helps with simple tasks Removes clothing									Sa	Water safety Matches Sharp or electric objects	Hgt Wgt HC	
	Fm	Tower 4 cubes Dumps raisin from bottle spontaneously									Fd	Proper snacks	PPD Hct	
	L	Follows directions Combines 2 words Names body parts									Sx	Toilet training	DPT-4 OPV-4	
	M	Kicks ball Walks up steps Throws overhand									Fl	"No" Bedtime rituals Night terrors		
2 to 2½ years	S	Wash/dry hands Tower 8 cubes									Sa	Sibling torment Car restraint Play, supervision	Hgt Wgt HC	
	Fm	Vertical line (within 30°) Bowel/bladder control									Fd	Good eating habits	Optional visit	
	L	Name 1 picture									Sx	Constipation		
	M	Jumps Runs*									Fl	Discipline: Explanation & consistency Need for play with peers		
2½ to 3 years	S	Puts on clothing Plays tag Imaginary friend*									Sa	Teach child play safety: throwing sharp objects following ball into street	Hgt Wgt BP	
	Fm	Copies O									Fd	Small portions of food	PPD Hct	
	L	Plurals First Name*									Sx	URI-Viral infections	UA	
	M	Balance 1 foot 1 second Broad jump Pedals tricycle									Fl	Decision making within limits Explaining "rules" Curiosity	(female) Vision, Hearing	
3 to 4 years	S	Separates easily from mother Dresses with help									Sa	Supervised use of scissors, pencils	Hgt	
	Fm	Buttons up Picks longer line Draw +										Street crossing Water safety	Wgt BP	
	L	Comprehends cold, tired, hungry (2 or 3) Comprehends prepositions Recognizes colors (3 of 4)									Fd	Table manners	PPD	
	M	Knows full name Hops on 1 foot									Sx	Nightmares	UA	
4 to 5 years	S	Dramatic play* Dresses alone									Sa	Teaching "outdoors alone" safety: Travel to school Neighborhood play	Hgt Wgt BP	
	Fm	Draw man, 3-6 parts Copies a square (demonstr.)									Fd	Teaching food selection	PPD Hct	
	L	Opposites (2 or 3) Hot ___ Woman ___ Big ___									Sx	Check regarding: enuresis school phobia tummy aches	UA DPT-5 OPV-5	
	M	Catches bounced ball Balances well Heel to toe walk									Fl	Teaching respect for feelings and property of others Home responsibility	Vision Hearing	
5 to 6 years	S	Shares with peers* Knows street address* Knows parents' names*									Review 5 year items		School form Hgt Wgt BP PPD Hct UA	
	Fm	Draw man, 6 parts Copies triangle*											(female)	
	L	Defines (6 out of 9) Ball ___ Beach ___ Desk ___ House ___ Banana ___ Window ___ Ceiling ___ Fence ___ Sidewalk ___ Composition 3 of 3: Spoon ___ Shoe ___ Door ___											Vision Hearing	
	M	Backward heel-toe walk Skips Passes all 5 year items*											Immunization update	

* Denotes items which are not included in Denver Devel. data.



WELL CHILD CARE CHECK SHEET

Source

Request Date

Patient Identification

Age	DEVELOPMENTAL TASKS S = Social Fm = Fine Motor L = Language M = Gross Motor	() = Age at which 90% of children can do task. White Bars = Age during which 75 - 90% of children accomplish task per Denver Developmental (DDST). Check Age in which task accomplished (mos/wks) 0 4w 8w 4m 6m 8m 10m 12m	ANTICIPATORY GUIDANCE	PROCEDURES
			Sa = Safety Sx = Symptomatic Rx Fd = Feeding FI = Feeling Check if Discussed	Mark if Done
Birth to < 4 wks	S Regards face Fm Equal movements Follow to midline L Responds to bell M Moro Neck/elbow flexor tone Stomach - lifts head	(1 / 0) (birth) (1 / 2) (1 / 2) (*) (*) (*)	Sa Car restraints Bathing Bedding Fd Breast Feeding Propping, burping Volume expectations Sx Nasal hygiene Skin care FI Parents & Siblings	Hgt Wgt HC PKU UA Vitamins Fluoride
≥ 4 to < 8 wks	S Smiles responsively Fm Follows past midline L Vocalizes, not crying M Stomach up 45°	(2 / 0) (3 / 0) (1 / 3) (3 / 0)	Sa Falls (rolls over) Car restraints Bathing Fire retardant clothing Small objects out of reach Fd Formula or breast Future solids Sx Thermometer use FI Sleep	Hgt Wgt HC DPT-1 OPV-1
≥ 2 to < 4 mo	S Smiles spontaneously Fm Follows to 180° Hands together L Laughs Squeals M Head steady, sitting Prone, holds chest up	(5 / 0) (4 / 0) (3 / 3) (3 / 1) (4 / 2) (4 / 0) (4 / 1)	Sa Crawling: objects out of reach stairway "gate" Risks of walkers, jumpers Fd Review solids Spoon Formula or breast Sx Diarrhea FI Behavior expectations	Hgt Wgt HC DPT-2 OPV-2
≥ 4 to < 6 mo	S Smiles at mirror Fm Grasps rattle Reaches for object L Coos M Rolls over Pulls-to-sit, no head lag	(*) (4 / 2) (5 / 0) (*) (4 / 2) (6 / 1)	Sa Review crawling: objects, electric outlets, floor heaters Food aspiration (beans) Fd Milk Food selection Feeding techniques Sx URI Review FI Stimulation - consistency	Hgt Wgt HC DPT-3 OPV-3
≥ 6 to < 8 mo	S Feeds self crackers Fm Rakes raisin, attains Passes cube, hand to hand L Turns to voice M Bears some weight on legs Sits without support	(8 / 0) (7 / 3) (7 / 2) (8 / 1) (7 / 2) (7 / 3)	Sa Review Fd Review Sx Ear infection FI Separation anxiety	Hgt Wgt HC Optional visit
≥ 8 to < 10 mo	S Works for toy out of reach Plays peekaboo Resists toy pull Fm Thumb-finger grasp L Mama, dada, nonspecific M Pulls self to stand Stands holding on Gets to sitting	(9 / 0) (9 / 3) (10 / 0) (10 / 2) (10 / 0) (10 / 0) (10 / 0) (11 / 0)	Sa Review poisons (Ipecac) Fd Finger feeding Weaning Feeding techniques Sx Dental hygiene FI Experimentation, separation Exploration	Hgt Wgt HC Sickle PPD Ipecac
≥ 10 to < 12 mo	S Plays pat a cake Fm Bangs two cubes in hand L Mama, dada specific M Walks, holding on furniture	(13 / 0) (12 / 1) (13 / 1) (12 / 2)	Sa Streets Climbing (poisons, falls, windows) Fd Decreased appetite Eating habits Sx Vomiting FI Independence testing Consistent limits	Hgt Wgt HC Optional visit

Age	DEVELOPMENTAL TASKS S = Social Fm = Fine motor L = Language M = Gross Motor	() = Age at which 90% of children can do task. White Bars = Age during which 75 - 90% of children accomplish task per Denver Developmental (DDST).	Check age in which task accomplished										ANTICIPATORY GUIDANCE Sa = Safety Sx = Symptomatic Rx Fd = Feeding FI = Feeling	PROCEDURES Mark if Done		
			(yrs/mos)	Check if Discussed												
				12m	18m	2y	2½y	3y	4y	5y	6y					
≥ 12 to < 18 mo	S	Plays ball	(1 / 4)										Sa	Car restraint	Hgt	
		Drinks from cup	(1 / 5)											Window screens	Wgt	
	Fm	Neat pincer grasp	(1 / 2)											Running into danger	HC	
		Tower two cubes	(1 / 8)											Scalds		
≥ 18 mo to < 2 yrs	L	3 words (other than mama)	(1 / 8)										Fd	Complete weaning	UA	
		Scribbles spontaneously	(2 / 1)											Appetite slump		
	Sx	Mouth-to-mouth resuscitation														
	M	Stands momentarily	(1 / 1)											FI	Imitation of adults	MMR (≥ 15 mo)
		Walks well	(1 / 2)											Tantrums		
		Stoops & recovers	(1 / 2)											Strong preferences		
		Crawls up steps	(*)													
≥ 18 mo to < 2 yrs	S	Removes garment	(1 / 10)										Sa	Water safety	Hgt	
		Uses spoon, spills little	(1 / 11)											Matches	Wgt	
		Helps with simple tasks	(1 / 11)											Sharp or electric objects	HC	
	Fm	Dumps raisin from bottle	(2 / 0)											Fd	Proper snacks	PPD
≥ 2 yrs		demonstrated	(2 / 3)											Sx	Toilet training	Hct
		Tower 4 cubes	(2 / 3)													
	L	Points to 1 named body prt.	(1 / 11)											FI	"No"	DPT-4
		Combines 2 words	(2 / 3)											Bedtime rituals	OPV-4	
≥ 2 to < 2½ yrs	M	Walks up steps	(1 / 11)											Night terrors		
		Kicks ball	(2 / 0)													
	S	Independence	(*)											Sa	Sibling torment	Hgt
		Bowel-bladder control	(*)											Car restraint	Wgt	
≥ 2½ to < 3 yrs	Fm	Dumps raisins out of	(3 / 0)											Play, supervision	HC	
		bottle spontaneously	(3 / 0)											Fd	Good eating habits	Optional
	L	Names one picture	(2 / 6)											Sx	Constipation	visit
		Follows direction, (2 of 3)	(2 / 8)											FI	Discipline:	
≥ 2½ to < 3 yrs		Throws ball overhand	(2 / 7)											Explanation & consistency		
														Need for play with peers		
	S	Puts on clothing	(3 / 0)											Sa	Teach child play safety:	Hgt
		Washes/dries hands	(3 / 2)											throwing sharp objects	Wgt	
≥ 3 to < 4 yrs	Fm	Imitates vertical line	(3 / 0)											following ball into street	BP	
		to within 30°	(3 / 3)											Fd	Small portions of food	PPD
		Copies "0"	(3 / 3)											Sx	URI - Viral infections	Hct
		Tower 8 cubes	(3 / 5)											FI	Decision making within limits	UA
≥ 3 to < 4 yrs	L	Uses plurals	(3 / 2)											Explaining "rules"	(female)	
														Curiosity	Vision	
	M	Jumps in place	(3 / 0)												Hearing	
		Pedals tricycle	(3 / 0)													
≥ 3 to < 4 yrs	S	Plays interactive games(tag)	(3 / 6)											Sa	Supervised use of scissors,	Hgt
		Dresses up with help	(3 / 6)											pencils	Wgt	
		Buttons up	(4 / 3)											Street crossing	BP	
	Fm	Picks longer line (3 of 3)	(4 / 4)											Water safety		
≥ 4 to < 5 yrs		Copies "+"	(4 / 4)											Fd	Table manners	
	L	Gives first & last name	(3 / 9)											Sx	Nightmares	PPD
		Comprehends cold, tired	(4 / 2)											FI	Genital exploration	UA
		hungry (2 of 3)	(4 / 6)											Imaginative play and fears	(female)	
≥ 4 to < 5 yrs		Comprehends prepositions	(3 of 4)											Sharing		
	M	Balances on one foot	(3 / 3)													
		1 second	(4 / 3)													
		5 seconds, (2 of 3)														
≥ 4 to < 5 yrs	S	Separates easily from	(4 / 9)											Sa	Teaching "outdoors alone"	Hgt
		mother	(5 / 0)											safety:	Wgt	
		Dresses alone	(5 / 0)											Travel to school	BP	
	Fm	Draw a man - 3 parts	(5 / 4)											Neighborhood play		
≥ 5 to < 6 yrs		Imitate ☐ demonstrated	(5 / 8)											Fd	Teaching food selection	PPD
	L	Recognizes colors (3 of 4)	(4 / 11)											Sx	Check regarding:	Hct
		Opposites:												school phobia	UA	
		[] hot [] woman [] big												tummy aches		
≥ 5 to < 6 yrs	M	Heel to toe walk (2 of 3)	(5 / 0)											FI	Teaching respect for feelings	DPT-5
		Hops on 1 foot	(4 / 10)											and property of others	OPV-5	
														Home responsibility	Vision	
															Hearing	
≥ 5 to < 6 yrs	Fm	Copies square	(6 / 0)											Review 5 year items	School form	
		Draw a man, 6 parts	(6 / 0)													
	L	Defines (6 of 9)	(6 / 3)											Sa	Teach:	Hgt
		[] ball [] beach												Parents' names	Wgt	
≥ 6 to < 7 yrs		[] desk [] house	75% at											Home address	BP	
		[] banana [] window	6 / 0													
		[] ceiling [] fence														
		[] sidewalk														
≥ 6 to < 7 yrs		Composition (3 of 3)	(6 / 3)													PPD
		[] spoon [] shoe														UA
		[] door														(female)
	M	Balance on 1 foot 10 sec	(5 / 10)													Vision
≥ 7 to < 8 yrs		(2 of 3)														Hearing
		Catches bounced ball	(5 / 6)													
		(2 of 3)														
		Backward heel to toe	(6 / 3)													Immunization
≥ 8 to < 9 yrs		(2 of 3)														Update

(*) Denotes items which are not included in Denver Developmental Data of Frankenburg & Dobbs.

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