

Developing and evaluating a residents' curriculum

JANET P. HAFNER¹, KARA M. CONNORS², KEVIN VOLKAN³ & HENRY H. BERNSTEIN⁴

Harvard Medical School, Boston, MA, USA; ²Bridgeway Health Associates, Concord, MA, USA; ³California State University Channel Islands, Camarillo, CA, USA; ⁴Children's Hospital, Boston, MA, USA

SUMMARY This study examines the impact of a Bright Futures-based curriculum designed to teach pediatric residents how to integrate health education principles into everyday clinical practice. A two-phase study was conducted to evaluate the curriculum using both quantitative and qualitative methods. To measure the curriculum's impact on residents' clinical performance, a pre- and post-objective structured clinical examination (OSCE) design was administered to 14 residents in two groups: a control group ($n = 8$) and an intervention group ($n = 6$). Performance scores improved in the intervention group from pre- to post-testing in three core curriculum concepts (there was no change in the control group); performance in a fourth concept improved in both groups; and for the remaining two concepts, there was no change among the intervention group but an improvement in scores among those in the control group. Residents in the intervention group reported the curriculum to be of high quality and low difficulty. This study demonstrated that the curriculum had a positive impact on a resident's perceptions of his or her practice one year after participating in the intervention. The data suggest that each of the modules can be taught, the content learned and the principles applied to one's clinical practice.

Introduction

Well-child examinations, screenings, immunizations and care of acute illnesses have been successful at improving the physical health of children (Forrest *et al.*, 2003), but those results alone do not reflect the many pervasive changes in the provision of healthcare faced by families and communities across the nation. Among major transformations has been the increasing movement of healthcare delivery to the outpatient setting.

As a result the skills, knowledge and attitudes necessary for effective clinical practice become increasingly important, a perspective that is highlighted in several reports (American Medical Association, 1989; O'Neil, 1998; National Academies of Science, 2003).

Ensuring that future physicians acquire the required competences for delivery of health services in the outpatient setting becomes an important challenge. While there are an increasing number of competence-based curricula available to health professional faculty and students, Knight *et al.* (2001) to date have been the only researchers to report on the development of a health education curriculum designed specifically for pediatric educators and residents. The recent emergence of competence-based curricula (Carraccio *et al.*, 2004) highlights the demand for appropriate assessment tools

to better understand the efficacy of curricula in resident skill, knowledge and attitude development in health education.

The purpose of the research was to study primarily the impact of a health education curriculum on the clinical performance of pediatric residents in the ambulatory setting, and also to note residents' perceptions on the value of that curriculum in their clinical practice one year later. This paper details the development and the evaluation of *Pediatrics in Practice* (Benjamin *et al.*, 2002), whose aim is to teach pediatric residents and other child health professionals methods of integrating health education principles into everyday clinical practice.

Methods

Development of the health education curriculum

A Bright Futures Health Promotion Workgroup—comprising a diverse group of professionals that included pediatricians, educators, parents and nurses—was formed in 1998 with the charge of developing a curriculum that (1) integrates health education principles into clinical practice; and (2) responds to the health needs not only of the child *per se* but of the child in the context of family and community. The curriculum design, adapted from Tyler (1949) focused on stating clearly the curriculum's purpose; on structure; on teaching and learning strategies; and on evaluation.

The curriculum, available in full at www.pediatricsinpractice.org (Bernstein, 2003), has for its purpose to teach healthcare professionals how to develop a meaningful patient–professional partnership in a well-organized, time-efficient fashion intended to enrich the pediatric primary care encounter while imparting health education principles. Across a three-year period, the Workgroup discussed and developed a variety of curricular designs (Harden, 1986; Schubert, 1986) that could be implemented in a time-constrained training environment.

The Workgroup opted for short 30-minute sessions grouped into modules as an important element in the structure of the curriculum. The sessions included a variety of teaching strategies based on both Dewey's (1929) educational theories and on what Mezirow (1991) calls 'transformative learning', with specific attention on reflective exercise, role-play, mini-presentations, buzz groups,

Correspondence: Janet Palmer Hafner, EdD, Director of Faculty Development, Office of Educational Development, Harvard Medical School, 260 Longwood Ave—TMEC384, Boston, MA 02115, USA. Tel: 617-432-1939. Fax: 617-734-5224. Email: jhafner@hms.harvard.edu

brainstorming and case method. Sessions could be combined and adapted based on the needs of educators and learners. Each module also included an evaluation component.

In addition to identifying effective teaching strategies useful for conveying health education content, the Workgroup focused on the core knowledge, skills and attitudes that residents must acquire for effective practice. As a result of extensive pilots, the full curriculum evolved into a form that included an introductory video, a facilitator's guide and six interactive teaching sessions representing the core concepts that were identified: communication, partnership, education, advocacy, health promotion/illness prevention and time management. The finished curriculum proves highly adaptable in teaching a variety of healthcare professionals in different settings how to enrich the traditional primary care encounter.

Research design

A two-phase curriculum evaluation was conducted using both quantitative and qualitative research methods. The OSCE format was selected to evaluate the impact of the curriculum on residents given that the use of standardized patients to measure clinical competence has been identified as an effective, objective evaluation method. (Hamann *et al.*, 2002; Carraccio *et al.*, 2004). Where methods of gathering descriptive data such as in-person interviews or focus groups offer advantages for research of this nature, telephone interviews were deemed more practical for this study because of time constraints imposed by the participants clinical rotations.

The Children's Hospital Boston Institutional Review Board (IRB) approved the research study and informed consent was obtained from all study participants.

Sample

At Children's Hospital Boston a convenience sample of 14 junior residents who were available for all required components of the study during their service responsibilities were asked, and they agreed, to participate. The 14 residents participated in the study's OSCE on two separate occasions (August and September 2001). Once the resident on call schedule was determined participants were randomly assigned into control (seven females, one male) and intervention (four females, two males) groups. The intervention group participated in a three-hour teaching session covering all modules of the curriculum (a full description of the curriculum and of its facilitator guide is online at www.pediatricsinpractice.org) (Bernstein, 2003).

Data collection

Phase 1: Administration of the OSCE

Each study participant completed a six-station OSCE, the content representing the core concepts. One week later, the intervention group was taught the *Pediatrics in Practice* curriculum. The content was delivered in a three-hour teaching session facilitated by a faculty member specifically trained to teach the curriculum. This study did not provide the control group with any formal instruction in health

education. Within two weeks of completion of the intervention, all study participants again completed the OSCE.

Each station in the OSCE addressed one of the six core concepts of the curriculum. The timing for each station was designed to incorporate the amount of time available in a traditional patient encounter in a general pediatrics clinic. Thus, in the 10 minutes allocated to each resident at each station, two minutes were given to read the instructions; six minutes to complete the defined tasks with patients; and two minutes to travel between stations and synchronize the beginning of the next station for all participants. A timekeeper ensured that each station began and ended on time.

Each station included a trained standardized patient rater who was provided with the station's exam instructions. The standardized patient rater also completed a checklist to document whether or not a resident exhibited particular skills for each station and rated each resident's performance overall. The checklist was completed immediately after the encounter which allowed the standardized patient rater four minutes to complete the checklist for each resident (the two minutes the residents were given for reading instructions and the two minutes traveling between stations).

In addition to the resident exam instructions for each station, each resident was provided with a feedback survey (see Appendix A) to evaluate the quality and the perceived difficulty of the curriculum. Residents were instructed not to talk about the exam with any other resident during the 90-minute time block.

Phase 2: Individual telephone interviews with the intervention group

Each resident in the intervention group was contacted one year after participating in the instruction and OSCE to explore the residents' perceptions of the health education curriculum and its influence on their training and practice. An interview guide with sample questions was developed (see Appendix B). No interview lasted more than 30 minutes. The interview guide was pilot tested on a member of the control group by an interviewer and an observer. All interviews were conducted by one of the authors.

Data analysis

Phase 1. Data from each of the six OSCE station checklists was used to create pre- and post-scale scores among intervention and control groups. Scales were created based on a reliability analysis. Pre- and post-test scores were then created using the scales. A repeated-measures ANOVA was used to analyse the within-subject variance of each pre- and post-score pair. Intervention or control group membership was modelled as between-subject variance in the same analyses. All data were analysed using SPSS version 10.1.

Phase 2. Data obtained from the telephone interviews were audiotaped, transcribed, reviewed and analysed independently by two reviewers. These analyses were completed according to open coding (Miles & Huberman, 1984), and emerging themes were identified and recorded based on similarity and emphasis.

Results

Phase 1: The OSCE

Table 1 illustrates the difference in means among the intervention and control group scores as they relate to each of the curriculum’s core concepts. Pre- and post-test scores representing the greatest positive numerical difference indicate the strongest degree of improvement in performance. Figure 1 illustrates the improvement in the intervention group performance scores in each of the curriculum’s core concepts from pre- to post-test.

Resident performance among the intervention group improved from pre- to post-test scores in their exposure to time management, partnership and education. Resident performance in advocacy also improved among the intervention group, although, as Table 1 illustrates, the control group showed a greater pre- to post-score than the intervention group for this variable.

Table 2 illustrates resident ratings of the overall quality and difficulty of each of the curriculum’s core concepts. Quality refers to how well the station elicited the content it was intended to elicit. Difficulty of a core concept was meant to address how the residents perceived they understood the concept; we did not measure learning in this study.

The residents provided a high score in measuring quality for each concept with a range between 3.0 and 4.0. There was also a small range in difference in the rating of the degree of difficulty of the concepts. Residents rated the difficulty of each concept between 2.0 and 3.0. The partnership,

Table 1. Mean differences among intervention and control groups by each of the curriculum’s concepts.

Curriculum concepts	Intervention group (n = 6)	Control group (n = 8)	p-value
Advocacy	0.60	3.80	0.060
Communication	0.00	0.60	0.629
Education	0.88	0.00	0.310
Health promotion/ Illness prevention	0.00	0.40	0.501
Partnership	0.75	-1.20	0.714
Time management	0.85	0.60	0.954

communication and education core concepts received the highest scores based on the residents’ perceptions while the advocacy concept was perceived as the most difficult. Residents’ overall impression of the quality and usefulness of the curriculum was rated very high (4.0).

Phase 2: Perceptions of the health education curriculum

Data from the in-depth telephone interviews with the six members from the intervention group revealed the following five major themes:

- (1) Time management, communication, and health promotion/illness prevention were the most valued health education concepts.
- (2) The health education curriculum reinforced key challenges encountered in today’s healthcare environment by health professionals.
- (3) The health education curriculum provides a framework for practice.
- (4) The health education curriculum should be introduced in the earlier years of medical education and training.
- (5) The health education curriculum is in alignment with the needs and interests of children and families.

Figure 2 summarizes residents’ perceived ability in each health education concept as a result of exposure to the curriculum.

- (1) *Time management and communication were the most valued health promotion concepts (n = 4).* Respondents discussed strategies they had learned and were using from the curriculum. One resident said:

[The curriculum] gives some strategies for how to deal with things, like not having enough time to go into extreme detail on everything that you want to go over with the parent. It helps you to choose which things are the most important ones to address at that visit... it also gives some strategies for how to communicate things in an effective way.

Two residents spoke specifically of the time-management concept. One said:

... I think that [the time management] one has been the most relevant... I just try to keep in mind that

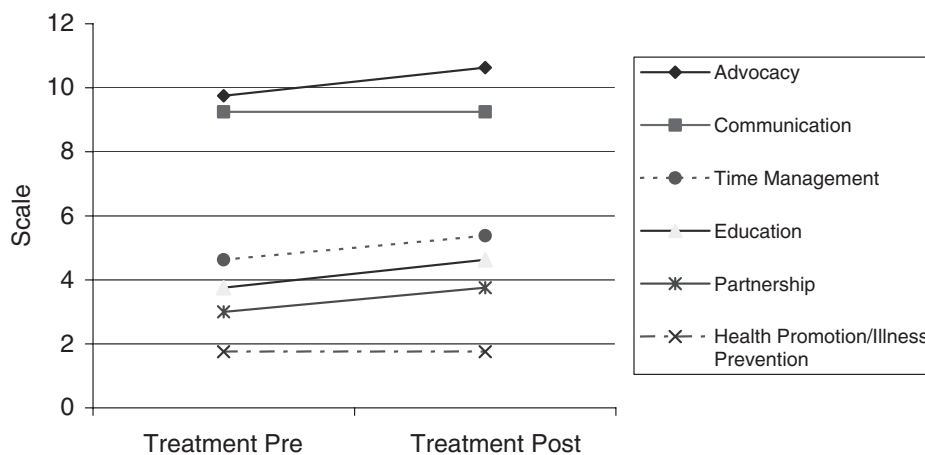


Figure 1. Changes from pre- to post-scores among intervention group participants.

it's better to address one or two important issues completely rather than trying to do a little bit of everything.

Another participant pointed to the challenges of incorporating health promotion content, or anticipatory guidance, into practice.

...anticipatory guidance. It's a tough thing because it's something that the more complicated a child is medically the less health promotion you have time to do, so it feels like the sicker kids get less preventive kind of counselling than the healthier kids, and that's something that I haven't been able to figure out how to deal with. But I do try to incorporate that every time into a visit.

- (2) *The health education curriculum reinforced key challenges encountered in today's healthcare environment by health professionals.* Most participants (n = 4) identified that a core strength of the curriculum is the role that it plays in today's healthcare environment. One resident said:

I think it sort of brought out the challenges we face as clinicians. It [the curriculum] did that well.

- (3) *The health education curriculum provides a framework for practice.* Respondents (n = 4) indicated that the

concepts in the curriculum had not been a routine part of practice but their participation in the OSCE underscored key questions that must be continuously considered for practice. One respondent said:

...I think it was good that it kind of frames a lot of the key questions that doctors need to be cognizant of and thinking about...I think the curriculum focused more on the art of being a doctor rather than the science of it, and I think that is something that you don't get enough of.

- (4) *The health education curriculum should be introduced in the earlier years of training and medical education.* Most respondents (n = 4) indicated that the health education concepts are very important and should be incorporated into their earlier years of training and medical education. For example:

I think those skills are important to kind of build as you go through your residency. And, hopefully, people have gotten them. I think it would be most beneficial to have them before you start residency, just to stress these points.

Another resident said:

[The curriculum] highlights a lot of important things, in interacting with patients and families that you might not have known at the beginning of the internship, but by the time I did it as a junior, some of those things I had kind of figured out, but it was just because I stumbled through. If I had had those things brought to my attention earlier on it might have been more helpful.

- (5) *The health education curriculum is in alignment with the needs and interests of children and families.* All respondents expressed their belief that the curriculum is relevant to the needs and interests of children and families. One resident indicated that the curriculum focused providers on the importance of:

...keeping conscious of what their goals are as opposed to our goals...also, just focusing on health promotion and advocacy are definitely

Table 2. Quality and difficulty of health promotion curriculum core concepts.

Health promotion core concept	Quality Mean (SD)*	Difficulty Mean (SD)*
Advocacy	3.71 (0.751)	2.75 (0.442)
Communication	3.71 (0.690)	3.04 (0.359)
Education	3.71 (0.624)	3.08 (0.408)
Health promotion/Illness prevention	3.92 (0.654)	3.00 (0.295)
Partnership	3.87 (0.680)	3.08 (0.282)
Time management	3.58 (0.776)	2.96 (0.359)

* (n = 14) Quality measurement based on a scale of 1 (poor) to 5 (excellent); difficulty measurement based on a scale of 1 (too hard) to 5 (too easy).

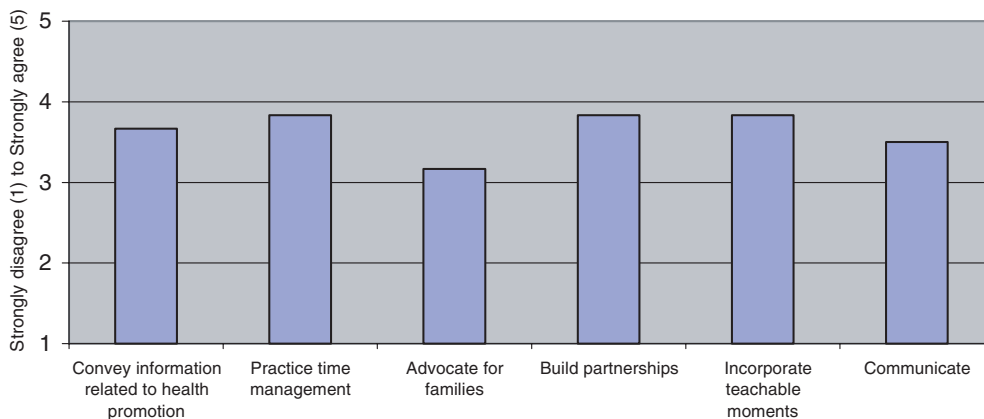


Figure 2. Perceived abilities among intervention group residents as a result of participation in the curriculum.

geared towards the child's health and the family structure.

Another resident reported:

I think that it definitely is in alignment with the needs of children and families in terms of making the visit more fine tuned so that you can address the important issues, and also communicate with the parents so that everyone understands the plan, and the parents feel like they can talk to the providers and that they are being heard.

Discussion

This study demonstrated that the curriculum had a positive impact on a resident's perceptions of his or her practice one year after participating in the intervention. Changes were noted in the immediate effects from exposure to the curriculum with the pre- and post-intervention in the areas of education, partnership and time management. Residents are seldom observed in the clinical setting: as one said, she "stumbled through" many practices. The OSCE is designed to provide learners with direct observation and feedback. Carraccio & Englander (2000) discuss the usefulness of the OSCE as a tool for formative evaluation.

Similarly, Duerson *et al.* (2000) point out in their documentation of the OSCE's effects on faculty teaching, student performance and the curriculum, that an OSCE is a valid and reliable assessment tool for directly examining clinical performance. Finally, Hodges *et al.* (1999) state in their recent study about the complexity of assessing resident performance that OSCEs were found to be one of the best means of evaluating clinical skills. OSCEs examine knowledge in real-time situations and are simulations of factual experiences common in medical practice. As Hilliard & Tallett (1998) note in their conclusions, the OSCE is a reliable and valid method for assessing clinical competence. Van der Vleuten & Swanson (1992) report that the difficulty of the development of checklists in several areas is an important validity threat to be addressed when one designs a research project or when the OSCE is used for evaluation purposes.

Due to the small sample, significant results on the quantitative data were not evident but the data suggest that each of the modules can be taught, the content learned and the principles applied to one's clinical practice. The standardized patients came from the nationally known University of Massachusetts training where all the patients are trained. The faculty member who taught the curriculum was trained in a two-hour faculty development session with a qualified educator at Harvard Medical School, whose expertise is faculty development. With a larger sample, the areas of communication, health promotion/illness prevention and advocacy may show significant results in an OSCE evaluation. In addition, the lapse in time between the administration of the OSCE and the phone interviews posed the potential threat of recall bias to our study.

The development of the curriculum, the evaluation tools for each module and the OSCE vignettes occur at a pivotal time in medical education. With a growing shift towards competence-based education (American Medical Association, 1989), the curriculum presents medical educators and residents with a promising framework for communicating and delivering health-promoting messages to children, parents and families. Given the changing expectations of today's health professionals, the curriculum could be adapted and introduced into the early years of medical education.

The residents expressed the opinion that earlier exposure may provide greater opportunities for future residents to strengthen their skills and knowledge in the areas covered in the curriculum over time, which in turn might advance mastery of the core competences for effective practice recommended by the Accreditation Council for Graduate Medical Education (American Medical Association, 1989). Learners from other Maternal and Child Health training programs could also benefit from this curriculum, which would require further study.

Currently, the curriculum is being adapted to a distance learning program that combines self-directed learning with interactive features including 'progress checks', journaling, action plans and teaching exercise plans. Expanding the accessibility of the curriculum makes possible increased opportunities to disseminate necessary health education information across all health disciplines.

Advancement of health education concepts depends not only on the availability of appropriate educational and assessment materials, but also on the appropriate implementation of relevant learning modules. The ongoing study of the curriculum will encourage the use and integration of *Pediatrics in Practice* in health, education and training programs, and practice settings across the country.

Practice points

- The *Pediatrics in Practice* curriculum had a positive impact on a resident's perceptions of his or her practice one year after participating in the intervention.
- Changes were noted in the immediate effects from exposure to the curriculum.
- Advancement of health education concepts depends not only on the availability of appropriate educational and assessment materials, but also on the appropriate implementation of relevant learning modules.
- The residents expressed the opinion that earlier exposure may provide greater opportunities for future residents to strengthen their skills and knowledge in the areas covered in the curriculum. Residents are seldom observed in the clinical setting. The curriculum and OSCE provided learners with direct observation and feedback.

Acknowledgements

The authors would like to thank the Bright Futures Health Promotion Workgroup, Children's Hospital Boston, Maria Alehandra Blanco, Robert Heroux, Lori Rutman, Michael Sesling and Rebecca Stoltz.

Notes on contributors

JANET P. HAFLE, EdD, is Director of Faculty Development at Harvard Medical School and Assistant Professor (Pediatrics), Children's Hospital Boston. In the past several years her concentration has been on the pedagogy of faculty learning to teach; on teaching and learning in the clinical setting; and on resident teaching programs.

KARA CONNORS, MPH, is the Education Consultant for a distance learning faculty development program based at Children's Hospital Boston. She has extensive background in facilitating and designing competence-based faculty development programs for diverse disciplinary groups. She has published widely in the field of community-based health professional education.

KEVIN VOLKAN, PhD, is Professor and Chair of Psychology at California State University Channel Islands. He has written widely on using OSCEs to assess performance among physicians and medical students. Prior to coming to Channel Islands, Dr Volkan was Director of Assessment and a faculty member at Harvard Medical School.

HANK BERNSTEIN, DO, is Associate Chief of the Division of General Pediatrics at Children's Hospital Boston, and Associate Professor of Pediatrics at Harvard Medical School. Dr Bernstein has extensive clinical, teaching and practice-based research experience in health promotion; medical education; e-learning for health professionals and families; and health services research.

References

AMERICAN MEDICAL ASSOCIATION (1989) Program Requirements for Residency Education in Pediatrics/ACGME, Effective: 1990, in: *Graduate Medical Education Directory 1989-1990* (Chicago, AMA).

BENJAMIN, J.T., CIMINO, S.A., HAFLE, J. & BRIGHT FUTURES HEALTH PROMOTION WORKGROUP (2002) The office visit: a time to promote health—but how?, *Contemporary Pediatrics*, 2, pp. 90-107.

BERNSTEIN, H. (2003) Pediatrics in practice: a health promotion curriculum for child health professionals. [Internet]. Available at: <http://www.pediatricsinpractice.org/index.html>, accessed 15 June 2004.

CARRACCIO, C., ENGLANDER, R., WOLFSTHAL, S., MARTIN, C. & FERENTZ, K. (2004) Educating the pediatrician of the

21st century: defining and implementing a competency-based system, *Pediatrics*, 113, pp. 252-258.

CARRACCIO, C. & ENGLANDER, R. (2000) The Objective Structured Clinical Examination: a step in the direction of competency-based evaluation, *Archives of Pediatric and Adolescent Medicine*, 154, pp. 736-741.

DEWEY, J. (1929) *Experience and Nature* (London, Open Court Publishing).

DUERSON, M.C., ROMRELL, L.J. & STEVENS, C.B. (2000) Impacting faculty teaching and student performance: nine years' experience with the objective structured clinical examination, *Teaching and Learning in Medicine*, 12, pp. 176-182.

FORREST, C.B., SHIPMAN, S.A., DOUGHERTY, D. & MILLER, M.R. (2003) Outcomes research in pediatric settings: recent trends and future directions, *Pediatrics*, 111, pp. 171-178.

HAMANN, C., VOLKAN, K., FISHMAN, M.B., SILVESTRI, R.C., SIMON, S. & FLETCHER, S.W. (2002) How well do second-year students learn physical diagnosis: results from an objective structured clinical examination, *BMC Medical Education*, 2, pp. 1-11.

HARDEN, R.M. (1986) Approaches to curriculum training, *Medical Education*, 20, pp. 458-466.

HILLIARD, R.I. & TALLETT, S.E. (1998) The use of an objective structured clinical examination with postgraduate residents in pediatrics, *Archives of Pediatric and Adolescent Medicine*, 152, pp. 74-78.

HODGES, B., REGEHR, G., MCNAUGHTON, N., TIBERIUS, R. & HANSON, M. (1999) OSCE checklists do not capture increasing levels of expertise, *Academic Medicine*, 74, pp. 1129-1134.

KNIGHT, J.R., FRAZER, C.H., GOODMAN, E., BLASCHKE, G.S., BRAVENDER, T.D. & EMANS, S.J. (2001) Development of a Bright Futures curriculum for pediatric residents, *Ambulatory Pediatrics*, 1, pp. 136-140.

MEZROW, J.D. (1991) *Transformative Dimensions of Adult Learning* (San Francisco, Jossey-Bass).

MILES, M.B. & HUBERMAN, A.M. (1984) *Qualitative Data Analysis: A Sourcebook of New Methods* (Beverly Hills, CA, Sage Publications).

NATIONAL ACADEMIES OF SCIENCE (2003) *Professions Education: A Bridge to Quality* (Washington, DC, National Academies Press).


O'NEIL, E.H. (1998) *Recreating Health Professional Practice for the 21st Century* (San Francisco, Pew Health Professions Commission).

SCHUBERT, W.H. (1986) *Curriculum: Perspective, Paradigm, and Possibility* (New York, Macmillan).

TYLER, R.W. (1949) *Basic Principles of Curriculum and Instruction* (Chicago, University of Chicago Press).


VAN DER VLEUTEN, C.P.M. & SWANSON, D.B. (1992) Reliability issues in objective structured clinical examinations, in: I.R. Hart & R.M. Harden (Eds) *Current Developments in Assessing Clinical Competence* (Montreal, Can-Heal).

Appendix A: Resident feedback survey



Draft

Harvard Medical School



**Pediatric Residents OSCE
RESIDENT FEEDBACK SURVEY**

Shade like this:

Exam Date: _____

Please answer the following questions about your experience with the Pediatric Resident OSCE. Your feedback is important and will allow us to continually improve the quality of the exam. Thanks for your help!

The Pediatric Resident OSCE:

- had realistic cases.
- provided enough time to complete the stations.
- was difficult

- was a fair evaluation of the skills I have been taught.
- has helped me to identify skills that I need to improve.

- gave me a chance to demonstrate my skills in health promotion/illness prevention.
- overall was a worthwhile experience.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Quality:</i>		<i>Difficulty:</i>
Poor.....Excellent	Too Hard.....Too Easy
1. Advocacy	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	1. Advocacy	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
2. Communication	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	2. Communication	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
3. Education	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	3. Education	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
4. Health Promotion	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	4. Health Promotion	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
5. Partnership	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5. Partnership	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
6. Time Management	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	6. Time Management	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>

Please write any comments and/or suggestions below:

Appendix B: Sample questions from the interview guide on the residents' perceptions of the curriculum

- What do you remember most about the Health Promotion Curriculum?
- Have you incorporated the core health promotion concepts into your day-to-day professional life? If yes, how have you done so?
- What are the strengths of the Health Promotion Curriculum?
- What are the weaknesses of the Health Promotion Curriculum?