

Positive deviant behavior and nutrition education

Warren L. Berggren and Joe D. Wray

Dr. Joe D. Wray, in his 1972 *Tropical Pediatrics* editorial, asked, "Can we learn from successful mothers?" His question had not previously appeared in a scientific journal, possibly because it may have embarrassed many professional scientific nutrition teachers to consider it seriously. Nutritional surveys often discover well-nourished children in poor families that inhabit villages where nearly all children are both poor and malnourished. Such well-nourished children are evidence that some mothers, despite poverty, can feed and care for their children successfully. Wray pointed out that, in order to teach useful child-care and feeding practices to poor mothers, we need to learn what local, successful, poor mothers are practicing [1].

No one published any answers to Wray's question, but many of us who read it looked for successful mothers and listened to them. In 1976, Sam Wishik and Susan Van der Vynckt of Columbia University proposed a project to identify "positive deviant" (PD) families in order to observe their care and feeding behaviors. They intended to teach those behaviors to mothers of malnourished children and, finally, to evaluate the teaching's impact on children's nutritional status [2].

Without referring to Wray's editorial, Wishik and Van der Vynckt characterized the families as "positive deviants" because they deviated from their population's norm in that their children were in the upper quartile of weight-for-age and height-for-age, and their deviation from the norm was in an upward, or "positive," direction. Wishik and Van der Vynckt thus gave "successful mothers" an academically erudite title. They also described methods to identify PD families, study their behavior, and teach PD feeding practices throughout the population. There is no published report of their project's implementation or its achievements.

Fourteen years later, in 1990, Zeitlin et al. published

extensive observations of PD behavior among Yoruba and Javanese families and their relation to children's nutritional status [3]. Their work, and a subsequent publication by Shekar et al. in 1992 [4], made the study of mothers' PD behavior and its impact on childhood nutrition a respectable category for academic and operational research. Today, there are published reports of children's improved nutritional status in populations that have learned to practice the care and feeding behaviors of PD mothers [5, 6]. Wray's question has been answered affirmatively.

Finding PD mothers and identifying the behaviors that make them successful is a "rapid assessment" procedure rather than a survey [7]. An assessor locates PD mothers by weighing a population's children. The assessor selects, from among children weighing in the top 10% or 25% of the weight-for-age distribution, those whose families' resources are meager. The assessor next interviews the selected children's mothers to identify any caring or feeding practices that distinguish them from mothers of malnourished children.

The behaviors vary with season, food prices, family illness, and unforeseen political events that further constrain resources and options. Assessment of PD behavior, called a "positive deviant inquiry" (PDI) [5], should therefore be done in each new community and with each important change in season. Programs can quickly lose their effectiveness by neglecting to repeat their PDIs appropriately.

It is important that nutrition teachers learn the PD behaviors and even more important that mothers of malnourished children begin to practice them as soon as possible. Their learning process must include discovering the appropriate information, practicing the PD behaviors under supervision, and experiencing proof that their children recover their health as they are fed and cared for appropriately.

Current learning programs are called "nutritional education and rehabilitation projects," "hearths," or a variety of other names. All of them induce mothers to rehabilitate their own and their neighbors' malnourished children in their own homes or similar settings,

Warren L. Berggren is affiliated with the Department of Tropical Medicine, Tulane University School of Public Health and Tropical Medicine in New Orleans, La., USA. Joe D. Wray is an Emeritus Professor at Columbia University School of Public Health in New York.

using foods and feeding and caring behaviors learned from local PD mothers. Mothers' performance of the PD behaviors should be sustained over a period of at least four weeks so that mothers acquire them as habits

[8]. Learning programs are most successful when all participants are valued, respected, and especially affirmed when they practice the PD behaviors and their children regain their health.

References

1. Wray JD. Can we learn from successful mothers? *J Trop Pediatr Environ Child Health* 1972;18(4):279.
2. Wishik SM, Van der Vynckt S. The use of nutritional 'positive deviants' to identify approaches for modification of dietary practices. *Am J Public Health* 1976;66(1):38–42.
3. Zeitlin M, Ghassemi H, Mansour M. Positive deviance in child nutrition—with emphasis on psychosocial and behavioral aspects and implications for development. Tokyo: United Nations University, 1990.
4. Shekar M, Habicht J-P, Latham M. Positive-negative deviant analyses to improve programme targeting and services: example from Tamil Nadu Integrated Nutrition Project. *Int J Epidemiol* 1992;21(4):707–13.
5. Sternin M, Sternin, Marsh D. Rapid, sustained childhood malnutrition alleviation through a "positive deviance" approach in rural Vietnam: Preliminary findings. In: Wollinka. O, Keeley E, Burkhalter RB, Bashir N, eds. The hearth nutrition model: applications in Haiti, Vietnam, and Bangladesh. Report of a technical meeting at World Relief Corporation Headquarters, June 19–21, 1996, Wheaton, Ill., USA. Arlington, Va., USA: BASICS, 1997:49–61.
6. Dubuisson St E, Ludzen S, Zayan A, Swedberg E. Impact of sustainable behavior change on the nutritional status of children. In: Storms D, Carter C, Altman P, eds. Community Impact of PVO child survival efforts: 1985–1994. proceedings, a worldwide conference sponsored by USAID, Bangalore, India, October 2–7, 1994. Baltimore, Md., USA: Johns Hopkins University Department of International Health, 1995.
7. Scrimshaw NS, Gleason GR, eds. Rapid assessment procedures, qualitative methodologies for planning and evaluation of health related programmes. Boston, Mass., USA: International Nutrition Foundation for Developing Countries, 1992.
8. Vella J. Taking learning to task, creative strategies for teaching adults. San Francisco, Calif., USA: Jossey-Bass, a Wiley Company, 2001.