I am deeply honored to receive the 2015 Dennis D. Drotar Distinguished Research Award by the Society of Pediatric Psychology (SPP). Indeed, I am humbled that my colleagues believed that my research contributions are worthy of this award, named after probably the most impactful and productive pediatric psychology researcher in our history. Given that I suspect that the SPP Executive Committee made this decision based on my career contribution, I want to take this opportunity to reflect over my career (but please note, albeit 30+ years in the making, it is not over yet), not only in terms of what I did, but what influenced its evolution.

It is not that I think my career path represents the model for achieving some success, even if success can be uniformly defined. Rather, there are numerous paths that can lead to success in a research career, but the direction I followed likely represents a less obvious one. That is, the prototypical research career path is one devoted to a relatively narrowly defined issue or problem, which is doggedly pursued through study after study, evolving over years. This is certainly a most admirable path, because when well done, it is likely to lead to clarity of understanding about that issue and well-recognized expertise and accolades for the researcher.

However, my path cannot be defined by strategic pursuit of a well-articulated goal. The major reason for this, aside probably from my easily getting bored, is that my research development has been largely influenced by the people and contexts I encountered. Today, I define my research as focused on the quality of life (QOL) of vulnerable children, but this distillation evolved over my career.

### Early People and Contexts
I spent my formative years, as they say, growing up in Sweden. As a bastion of equality and solidarity, this undoubtedly influenced my turning my research in more recent years toward the incredible injustice we see in the disparities in QOL, health, and well-being among different groups of children (to which I will return later). I came to the United States as an exchange student in High School and later returned to Ashland, Ohio to attend Ashland University.

There I was extremely fortunate to be taken under the wing of probably the only research-intensive professor at this small liberal arts college, Aaron Roy. Gratefully, I know that without him entering my life at that time, I would not be where I am today. Somehow, spending 3 years in a dark room running his rats through mazes instilled in me a passion for the research enterprise. And experiencing what he did on a daily basis, as well as the broader learning environment of an American college, led to my discovery, “Wow, you can get paid to be a life-long student.” Consequently, I wanted to become a professor, which in my view is the best job ever. I would choose this career over again, without a doubt.

Fortunately one (and only one) PhD program saw some potential in me, bringing me to Purdue University. Even though this was a hotbed in the 1970s for pediatric psychology training, I had absolutely no interest in this, indeed I had no professional interest in children. Yet, around me were fellow graduate students, such as Annette La Greca, Michael Roberts, and others, who embraced this new area and, unknowingly, left some positive trace in my brain associated with...
pediatric psychology. Nonetheless, I learned basic research skills applied to adult problems from Judy and Tony Conger, Marco Mariotto, and Jim Curran.

After completing clinical internship at Brown University and my degree, I found myself needing to do something useful for 1 year at UNC-Chapel Hill, where my then spouse was headed for her internship. Choices were few and a postdoc in developmental disabilities with Carolyn and Steve Schroeder seemed appealing, although this represented a departure from my heretofore adult-focused research interests. However, experiencing their passion for and tangible work to improve children’s QOL, especially those with a disability, transformed me, invoking a growing interest in devoting my career to children. More specifically, observing in my clinical work children with similar disabling conditions experiencing different adjustment, and likewise, parents of children with similar conditions coping differently in their roles, made me curious about these variations. I began to wonder what may account for these differences.

Research Into Adjustment to Pediatric Chronic Conditions

My interest in adjustment to chronic pediatric condition was reinforced when I arrived at my first faculty position at University of Southern California in 1982, and Jim Varni generously welcomed me to collaborate on studying patient populations at Orthopaedic Hospital and Children’s Hospital in Los Angeles. Our collaboration resulted in publications that were among the first to demonstrate empirically that a chronic illness or disability can have a significant negative impact on the psychosocial adjustment of children as well as their parents and that the specific condition matters relatively little (Wallander, Varni, Babani, Banis, & Wilcox, 1988; Wallander, Varni, Babani, Banis, et al., 1989; Wallander, Varni, Babani, DeHaan, et al., 1989).

We then proposed conceptual models of adjustment, one that addresses children with a chronic condition and another parents with a child who has a chronic condition (Wallander, Varni, Babani, Banis, & Wilcox, 1989; Wallander, Varni, Babani, DeHaan, et al., 1989). At the time I was much influenced by Rutter and colleagues’ framework of risk and protection, Garmezy’s development of the concept of resilience, and Folkman’s and Lazarus’ emphasis on stress and coping, leading to the models emphasizing psychosocial factors rather than medical aspects. To this end, I was also impressed by Pless’ and Pinkerton’s and Stein’s argument for a noncategorical approach, the idea that different chronic conditions can have much the same impact on psychosocial adjustment. Although founded in rich scholarship, I can admit now that I sketched the models rather quickly in an afternoon, with the intent just to make sense of our own research.

Yet, apparently filling a void, these models stimulated one of the most active research areas in pediatric psychology since its inception. Others’ investigations into the adjustment of children with chronic condition were often based on this conceptualization. One publication of the model (Wallander & Varni, 1998) has been cited over 600 times, surprisingly continuing through today about 16 years later, being cited 38 times in 2014. In fact, the child model publication was ranked 5th and the parent model 18th among the most cited articles in Journal of Pediatric Psychology (JPP) in its first 30 years (Aylward, Roberts, Colombo, & Steele, 2008), reflecting the strong interest in the field in psychosocial effects of pediatric conditions. Seeing the response to this contribution, I continued to espouse theory-driven research in pediatric psychology more broadly. Apparently agreeing with me, Michael Roberts, then Editor of JPP, invited me to edit a special issue addressing this need (Wallander, 1992).

I moved on to University of Alabama at Birmingham (UAB) in 1986, where I continued research, examining influences on psychosocial adjustment to pediatric conditions together with a growing cadre of graduate students (e.g., Wallander & Venters, 1995; Wallander & Noojin, 1995). UAB was ideal for me to develop my career, featuring a large dynamic academic health sciences center and one of the first clinical health PhD programs in the country. Numerous clinics and colleagues provided opportunities for research with different pediatric populations.

People in Pediatric Psychology

As I began identifying myself with pediatric psychology, I naturally looked to SPP as a professional home. I was warmly welcomed into the pediatric psychology
network especially by my former Purdue colleagues, Michael Roberts and Annette La Greca. I was fortunate to be elected to the SPP Executive Committee, where I rejoined Carolyn Schroeder and other wonderful people, and then as its President in 1992. Gratefully, I served as Associate Editor under both Michael and Annette, when they became, in turn, Editors of JPP.

Another crucial development, both for myself and, I believe, the field of pediatric psychology, was the initiation of the Florida Conference in 1988, led by Suzanne Johnson and Jim Johnson. While sharing cutting-edge research at these mostly biennial conferences was important, the most valuable aspect in my opinion was the relationships and networks that develop when spending 3 days together with like-minded people. Research collaborations emerged from these interactions, but more importantly valuable relationships, some of which I fondly return to today. Around SPP, at these conferences, and many other interactions in other contexts, I found, and confirmed over and over, that pediatric psychology is populated by many warm, supportive, and often incredible people. As someone said, “It is hard to be a jerk and work with children.” The social environment within pediatric psychology has been one of the best and most influential aspects of my professional life.

People and Context Stimulating Evolution of My Research

The environment at UAB and people I encountered there stimulated my research program. Critical to my further development was the arrival in 1990 of Sharon and Craig Ramey as the Directors of the newly established Civilian International Research Center, to focus on development and developmental disabilities. They were instrumental in my receiving a National Institutes of Health (NIH) K-award and gave me the freedom and support to pursue whatever, it seemed, I was interested in. They created an environment that was both fun and energizing. Stimulated by their work, I broadened my interests into intellectual disability (e.g., Frison, Wallander, & Browne 1998; Wallander, Dekker, & Koot, 2003) as well as the importance of intervention in early development to maximize effect on children’s development, to which I would return a few years later.

Both through course work and collaborations at the UAB School of Public Health, I came to appreciate a public health perspective on children’s health and well-being and learn epidemiological research approaches, which I believe are critical complements to health psychology. As a result, I felt the limitations with the relatively small convenience samples available for most of our pediatric clinic-based research and my relatively narrow focus on clinical populations.

People and Contexts Around the World

Additional people and contexts influenced the evolution of my research. From early on I wanted to experience people, places, and cultures around the world. Of course, it was this desire that brought me to this country as a teenager. As a professor, I began attending international conferences, where I met really interesting colleagues in interesting places who would be working on similar issues, but because of differences in context might approach them somewhat differently. And visiting fascinating and often beautiful places in the world was a great bonus. Some of my most valued relationships emanated from this process, starting as collegial interactions and evolving into real and lasting friendships.

My relationship with Hans Koot is a prime example of this, which started with a chat at a conference in London in 1994. Some 18 years later, I spent a sabbatical semester at his Vrije University and immensely enjoyed living in Amsterdam. And this year I saw his daughter, who I met when she was about 8 years old, defending her PhD in Psychology at Leiden University some 20 years later. In the meantime, we developed a joint interest in the concept of QOL applied to children, which resulted in a review paper (Wallander, Schmidt, & Koot, 2001) and an edited book with international contributors (Koot & Wallander, 2001).

It was through discussions with Hans that I came to believe that the primary outcome for children is QOL, which I had previously cast as psychosocial adjustment. QOL captures better the range of concerns we have when examining children’s development. To this end, I offered a definition of QOL for children emphasizing well-being in multiple domains, including physical, psychological, and social well-being, but extending beyond these core dimensions (Wallander, 2001). Currently Hans and I are collaborating on a paper in progress that we hope will stimulate a broader understanding of QOL than inherent in the dominant health-related QOL approach.

Meeting Bo Larson at a conference in Uppsala, Sweden in 1990 also led to collaborations over the years (e.g., Jozefiak, Larsson, Wichstrom, Wallander, & Mattejat, 2010; Wallander, Larsson, & Sartory, 1997) and a current adjunct faculty appointment at the Norwegian University of Science and Technology in Trondheim. There I supervise PhD candidates using unique longitudinal and large community samples to study anxiety (e.g., Ranøyen, Jozefiak, Wallander, Lydersen, & Indredavik, 2014), depression (e.g., Agerup, Lydersen, Wallander, & Sund, 2014), and peer victimization (Sigurdson, Wallander, & Sund, 2014) in adolescence. Rather unique has been our ability here to examine the transition from adolescence to young adulthood when such problems are present as well as intergenerational transmission of risk for mental health problems.
Research Into Early Development and Intervention in a Global Context

These various people and contexts consequently affected the development of my research into recent and current phases. In 1998, I was primed to welcome an opportunity when Wally Carlo knocked on my door at UAB. As a neonatologist, he explained, he travels to developing countries around the world training birth attendants to resuscitate newborns who were not breathing initially. As a result, many newborns survive, and yet, he was concerned that some may be at risk for neurodevelopmental impairment from the initial lack of oxygen to the brain. He wondered, can we do something to reduce this risk?

This led to the recently completed BRAIN Project—formally titled Brain Research to Ameliorate Impaired Neurodevelopment—where we led an interdisciplinary, multisite, international team of collaborators in implementing the largest randomized controlled clinical trial (RCT) of an early developmental intervention (EDI) ever undertaken in developing countries. Moreover, this is the only RCT of an EDI that was not solely focused on one developing country, as we mounted three parallel identical RCTs in rural regions of India, Pakistan, and Zambia. Also, by targeting children at risk for impaired development and health due to birth complications as well as those without risk, who had uncomplicated births, we could compare the effects of EDI on children with different risk profiles.

Together with colleagues, we trained research staff in Lusaka, Zambia, Belgaum, India, and Karachi, Pakistan, to complete biweekly visits over a 3-year period with mothers of 431 newborn infants, totaling over 17,000 intervention visits. Mothers assigned to the EDI condition received training during these home visits, following a specific curriculum adapted to the local cultures, to engage their infants in developmentally tailored brain-stimulating activities during everyday caretaking activities. Those in the control condition received health and safety counseling on the same schedule. Evaluations were conducted by trained blinded local professionals, using gold-standard developmental assessments, when children reached 12, 24, and 36 months of age.

We found significant benefits at 36 months in both mental and psychomotor development for children with birth complications who received EDI compared with the control condition, and in psychomotor development for children with healthy births (Carlo et al., 2013). We also showed that differential benefits owing to EDI were observable first at 36 months, which were not yet evident at 12 or 24 months of age (Wallander, Bann, et al., 2014). Finally, we linked better developmental outcomes owing to EDI with receiving a higher number of visits (this varied owing to mothers’ availability, country, sociodemographic, and child health variables) (Wallander, Biasini, et al., 2014). We were the first to show this link in developing countries, making the case that EDI needs to be implemented at the highest intensity possible.

The BRAIN Project adds substantially to previous evidence that collectively suggests that EDI should be one prominent approach used in developing countries to improve early development in children, which may begin to address long-term outcomes and, ultimately, intergenerational transmission of endemic poverty. Aside from the satisfaction of conducting research with global health implications, this work is one of the very highlights of my career, as it supported visits in Zambia and India and interactions with a diverse group of collaborators in all three countries and the United States.

Research Into Disparities in Children’s QOL

Likewise, from the confluence of different experiences and relationships alluded to above, I began to be more and more disturbed by the inequality among groups in our society and the effects this has on child health, well-being and development (e.g., Chen, Matthews, & Boyce, 2003; Flores & Committee on Pediatric Research, 2010), indeed their QOL as I construe it. Seeing an opportunity to illuminate, and possibly understand better, disparities in childhood health and well-being, I joined Michael Windle and colleagues at UAB and other sites in initiating in 1999 a longitudinal cohort study in three communities (Birmingham, Houston, Los Angeles). We enrolled 5,148 children aged 10–11 years, who were followed over three assessments until ages 15–16 years, with 86% retention across 5 years. A key feature of the design, the sample is distributed about equally across African American, Latino, and White racial/ethnic groups.

Called Healthy Passages™, this project addresses broadly construed QOL and development during adolescence, and makes at least three unique contributions: We can examine: (1) in one project, the major threats to the QOL during adolescence, including substance use (tobacco, alcohol, illicit drugs), sexual risk behaviors, violence and aggressive behavior, emotional dysfunction and suicide, injury, and obesity-related physical activity and nutritional intake; (2) a diverse set of potential influences on these issues from characteristics of the individual to those of the contemporary culture to which youth are exposed, especially through media; and (3) disparities in QOL among the three major racial/ethnic groups in the United States, having enrolled substantial numbers from each.

In 2007, I moved to University of California, Merced, to join in the development of a brand new
research university, including establishing a PhD program in Health Psychology. The research group I lead here currently pursues three lines of research. Although one of these lines, which is focused on behavioral risk disparities, is just in progress currently, findings are emerging from the other two research lines.

Racial/Ethnic and Socioeconomic Disparities in QOL

Thus far, we have shown that there are marked racial/ethnic disparities across multiple dimensions of QOL already at ages 10–11 years, but also that socioeconomic and social-contextual differences among these groups contribute substantially to the observed disparities (Fradkin et al., 2014; Schuster et al., 2012; Wallander et al., 2012). As well, exposure to at least two stressful life events in the past year is a risk factor for reduced QOL (Coker et al., 2011). We are currently examining in several studies how these disparities develop across early- to mid-adolescence, applying both multiple panel and longitudinal growth curve analysis.

We have also begun testing hypotheses pertaining to risk and protective factors that can explain variation in QOL beyond sociodemographic status. Although early in this process, influences appear to vary widely across racial/ethnic groups (McDade-Montez et al., 2015; Scott, Wallander, Depaoli, et al., 2015; Scott, Wallander, Elliott, et al., 2015). We aim to build a comprehensive model of risk and protection based on our empirical findings that can generate hypotheses to guide future research.

Obesity-Related Disparities

We have shown that there is a negative effect on QOL associated primarily with being super-obese (>97 percentile weight relative to height) (Wallander et al., 2009, 2013). However, there are interesting interactions depending, again, on race/ethnicity. Further, we were the first to show that the expected association between lower socioeconomic status and higher weight status is present indeed in Latino and White, but not in Black adolescents for whom improved family resources does not protect against obesity (Fradkin et al., 2015). Moreover, we were the first to examine the association between self-reported physical activity and weight status in diverse young adolescents finding, contrary to expectations, little or no association (Fradkin, Wallander, Elliott, Cuccaro, & Schuster, 2014). Likewise, we are unable to confirm many of the expected associations between self-reported dietary intake (e.g., fruits and vegetables, sugar-sweetened beverages) and weight status (work in progress). Again, associations between physical activity and dietary intake and weight status vary among racial/ethnic groups.

If confirmed in further research, our findings across these areas thus far suggest that influences on good health and QOL may not be universal, but vary based on social-cultural context, especially race/ethnicity and social class. This would point to the need to tailor interventions aimed at improving health and well-being to specific groups. However, much more work remains.

Concluding Remarks

Here I have reflected on the evolution of my research career and how significantly other people, as well as contexts, have influenced it. Most interactions and relationships have the potential to influence us, sometimes in profound ways. I marvel at that process, looking back now over my research career (as well as personal development, but that is another story). I have been extremely fortunate to have encountered many remarkable people in my career and have benefited greatly from them. And as anyone mentoring PhD students will attest, I have learned much from the 22 who have thus far completed their PhDs with me. I am indebted to numerous mentors, colleagues, and trainees as well as to SPP for receiving this award. It is also with renewed respect for the every Oscar winner standing in front of his or her peers, I realize I can only name some in this reflection. Numerous additional colleagues and former and current graduate students have to go unnamed here.

Conflicts of interest: None declared.

References


