

RELIABILITY AND VALIDITY OF A SUPERVISION SCALE FOR THE COMMON PEDIATRIC SUBSPECIALTY ENTRUSTABLE PROFESSIONAL ACTIVITIES

Richard B. Mink MD MACM, Alan Schwartz PhD, Bruce E. Herman MD, David A. Turner MD, Angela L. Myers MD MPH, Jennifer C. Kesselheim MD EdM, Deborah C. Hsu MD Med, Megan L. Curran MD, and Carol L. Carraccio MD, MA for the Subspecialty Pediatrics Investigator Network (SPIN)

Harbor UCLA Medical Center, Torrance, CA; University of Illinois College of Medicine at Chicago, Chicago, IL; University of Utah, Salt Lake City, UT; Duke University Hospital, Durham, NC; Children's Mercy Hospital, Kansas City, MO; Dana-Farber/Boston Children's Cancer and Blood Disorders Center, Boston, MA; Baylor College of Medicine (Houston), Houston, TX; Northwestern University Feinberg School of Medicine, Chicago, IL; American Board of Pediatrics, Chapel Hill, NC

Introduction

- Entrustable Professional Activities (EPAs) describe essential routine tasks that a practicing physician is expected to execute independently
- EPAs for the pediatric subspecialties include
 - 7 common to all
 - 3-6 subspecialty-specific
- Supervision scales have been proposed to assess the level of supervision as a trainee progresses
 - e.g. direct versus indirect supervision
- No supervision scales have been validated
- Single scale may not be applicable to all EPAs

Objectives

The objectives of this study were to:

- Develop supervision scales for 6 of the 7 EPAs common to all of the pediatric subspecialties
- Assess their reliability and validity in a multi-subspecialty, multi-centered study

Methods

- The Subspecialty Pediatrics Investigator Network (SPIN) was utilized
 - Links the 14 pediatric subspecialty fellowship program director networks
- SPIN Steering Committee comprised of representatives from each subspecialty
 - experts in medical education
 - used a modified Delphi process to develop supervision scales
- Requirements for the level of supervision scales
 - consistent with current approach to fellow supervision
 - intuitive to minimize need for faculty development
 - progressive levels of entrustment

Methods

Data Collection for Evaluation

- One week before CCC meeting, Fellowship PDs assigned level of supervision for each fellow for the 6 EPAs
- CCC then assigned level of supervision for each fellow for the EPAs at CCC meeting
- No additional faculty development
- Data collection in fall 2014 & spring 2015

Data Analysis

- Internal reliability: Cronbach's alpha
- Multivariate inter-rater reliability: Jason & Olsson's iota
- Group comparisons: Kruskal-Wallis & Wilcoxon tests

Results

- Separate 5-level scales were developed since no single scale was felt applicable to all EPAs

PROVIDE FOR AND OBTAIN CONSULTATION WITH OTHER HEALTH CARE PROVIDERS CARING FOR CHILDREN (Consultation)

1	Trusted to observe only
2	Trusted to execute with direct supervision and coaching
3	Trusted to execute with indirect supervision and discussion of information conveyed for selected simple and complex cases
4	Trusted to execute with indirect supervision and may require discussion of information conveyed but only for selected complex cases
5	Trusted to execute independently without supervision

FACILITATE HANDOVERS TO ANOTHER HEALTHCARE PROVIDER

1	Trusted to observe only
2	Trusted to execute with direct supervision and coaching
3	Trusted to execute with indirect supervision with verification of information after the handover for selected simple and complex cases
4	Trusted to execute with indirect supervision with verification of information after the handover for selected complex cases
5	Trusted to execute without supervision

CONTRIBUTE TO THE FISCALLY SOUND AND ETHICAL MANAGEMENT OF A PRACTICE

1	Trusted to observe only
2	Trusted to perform with direct supervision and coaching with supervisor verifying work product for accuracy
3	Trusted to perform with supervisor serving as a consultant for all tasks
4	Trusted to perform with supervisor serving as a consultant but only for complex tasks
5	Trusted to perform without supervision

Apply Public Health Principles And Improvement Methodology To Improve Care For Populations, Communities, And Systems (Pubhealth)

1	Trusted to observe only
2	Trusted to contribute with direct supervision and coaching as a member of a collaborative effort to improve care at the institutional level
3	Trusted to contribute without direct coaching as a member of a collaborative effort to improve care at the institutional level
4	Trusted to lead collaborative efforts to improve care for populations and systems at the institutional level
5	Trusted to lead collaborative efforts to improve care at the level of populations and systems at the regional and/or national level

LEAD WITHIN THE SUBSPECIALTY PROFESSION (Leadprof)

1	Trusted to observe only
2	Trusted to contribute to advocacy and public education activities for the subspecialty profession with direct supervision and coaching at the institutional level
3	Trusted to contribute to advocacy and public education activities for the subspecialty profession with indirect supervision at the institutional level
4	Trusted to mentor others and lead advocacy and public education activities for the subspecialty profession at the institutional level
5	Trusted to lead advocacy and public education activities for the subspecialty profession at the regional and/or national level

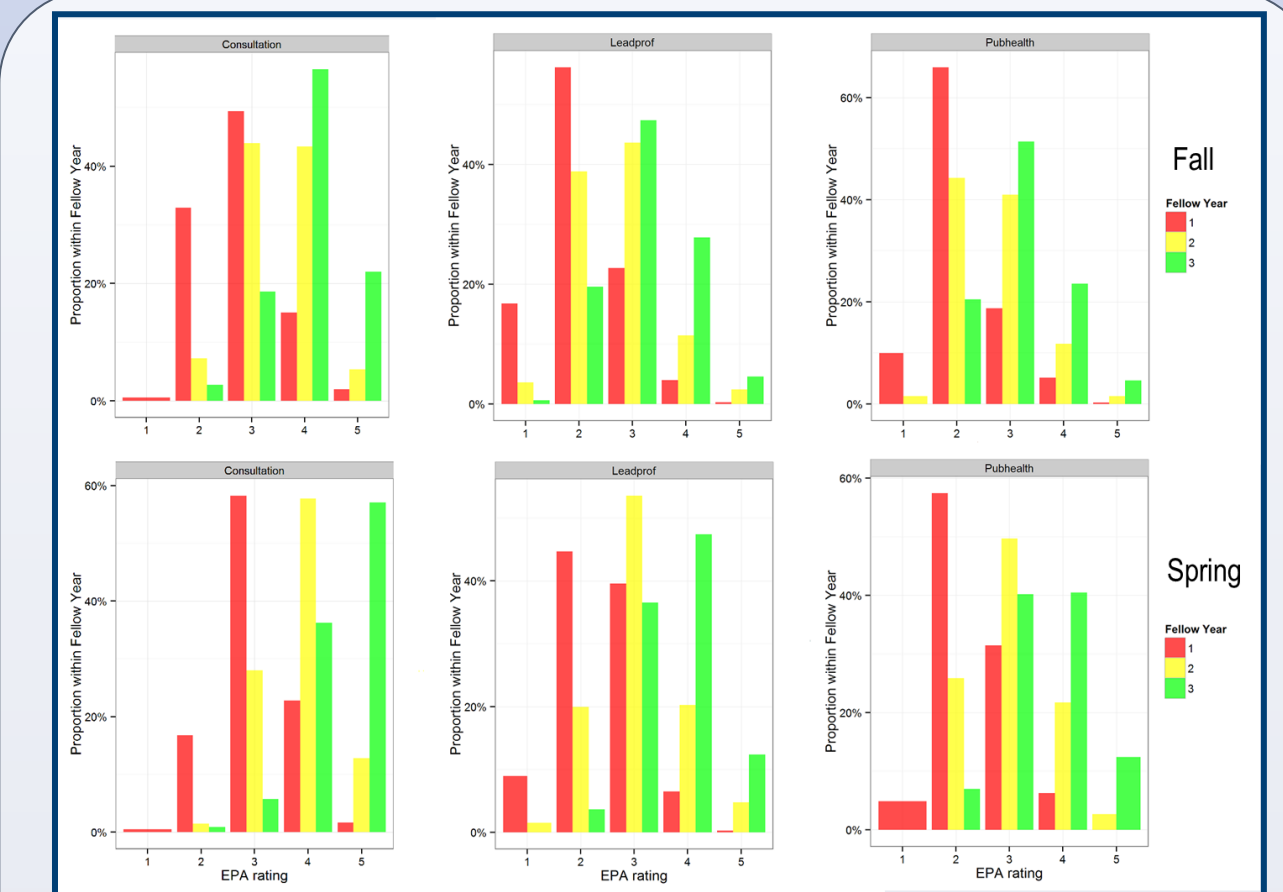
LEAD AN INTERPROFESSIONAL HEALTH CARE TEAM

1	Trusted to participate only
2	Trusted to lead with direct supervision and coaching
3	Trusted to lead with supervisor occasionally present to provide advice
4	Trusted to lead without supervisor present but requires coaching to improve member and team performance
5	Trusted to lead without supervision to improve member and team performance

Evaluation

	Fall 2014	Spring 2015
Programs Participating (n)	208	209
1 st year fellows (n)	352	369
2 nd year fellows (n)	332	336
3 rd year fellows (n)	327	331
Cronbach's alpha	0.92	0.92
Jason & Olsson's iota	0.70	0.74

- In both the fall and spring, 2nd years scored higher than 1st years (p<0.001) and 3rd years higher than 2nd years (p<0.001) (Figure)
- Consistent with trainee progress, spring scores were higher (p<0.001) than those in the fall for all years
- Data were similar whether the evaluations were performed by the fellowship PD or CCC



Levels of supervision assigned by CCC by year of training in the fall and spring for 3 of the EPAs

Conclusions

- Supervision scales for 6 common pediatric subspecialty EPAs were developed
- Internal and inter-rater reliability were high
- Both content and construct validity were demonstrated
- These scales are valid, reliable and feasible for use in EPA-based assessment of pediatric subspecialty fellows

SPIN Steering Committee

Adolescent Medicine: Sarah Pitts; Cardiology: Gina Baffa; Child Abuse: Bruce Herman; Critical Care: David Turner; Developmental & Behavioral Pediatrics: Jill Fussell & Pam High; EM: Deb Hsu; Endocrinology: Dianne Stafford & Tandy Aye; GI: Cary Sauer; Heme-Onc: Jennifer Kesselheim; ID: Angie Myers & Kammy McGann; Neonatology: Christiane Dammann & Patricia Chess; Nephrology: John Mahan; Pulmonary: Prina Weiss; Rheumatology: Megan Curran; APPD LEARN: Alan Schwartz; ABP: Carol Carraccio; APPD Fellowship Committee: Bruce Herman; CoPS: Richard Mink

Collaborators

R Abell, E Adderson, D Adkins, O Al-Ibrahim, E Alderman, C Allen, D Allen, M Amaya, R Amirnovin, J Anders, L Armsby, M Atlas, M Awonuga, F Bany-Mohammed, J Barker, C Barlow, A Barnes, G Barretto, C Barron, M Brook, P Bhatia, B Binstadt, A Blaschke, A Blaufox, M Bone, K Booth, D Boyer, J Brancato, S Bratton, L Brion, M Brook, P Brophy, K Bryant, K Carlson, F Carnevale, M Carney, M Caserta, J Chapman, J Clingenpeel, D Coury, R Cron, M Currie, D Dannaway, P Dennehy, C Doughty, L Doughty, A Dozor, J El Khoury, F Erenberg, C Estrada, S Etheridge, K Fairchild, A Falck, R Fastle, M Federman, H Feldman, B Felt, G Fleming, L Frank, S Friedman, J Frohna, M Fuloria, J Fuqua, H Ganz, C Garrison, M Gillam-Krakauer, J Glickstein, B Gonzalez, B Gottlieb, D Green, M Green, P Grimm, U Guillen, D Hains, M Hall, M Haller, R Harb, K Hardy, N Harik, V Havalad, V Heffner, J Helderman, M Henry, A Hergenroeder, M Hermiton, W Hoover, H Hsu, E Jacobs, J Jarosack, L Johnston, S Johnston, T Johnston, J Journeycake, A Kale, H Karpen, R Kato, J Katz, N Kellogg, J Kiger, J Kim, O Kim, B Kinane, E Klein, S Krishnan, M Kronman, J Kugler, D Kumar, T Laskey, E Lawson, T Lee, Y Lee-Kim, M Letson, S Long, M Lowe, S Lusman, R Lutes, M Macias, L Madison, N Maraga, K Marzan, K Mason, L Matheo, C Mauras, C McAnaney, M McCabe, L McGuinn, A McQueen, J Mehta, D Meryash, K Miller, M Moffatt, Z Mollie-Rios, R Mohon, R Monzavi, P Moore, K Nanda, A Narayan, E Nazarian, Y Nicolau, J Nocton, V Norwood, N Patel, J Pinheiro, J Pohl, K Potter, B Printz, R Quigley, R Rahhal, J Rama, R Ramanathan, A Rao, K Rehder, B Reinking, W Rice, Y Rivas, N Roizen, J Rose, J Rosen, M Rosenberg, C Roskind, A Ross, K Rouser-Stevens, I Sami, A Savant, S Savelli, W Sayej, A Schonwald, J Schuette, B Scottoline, J Sharma, T Sharma, L Sheets, E Shereck, T Silber, K Simonsen, T Simpson, L Siqueira, A Sirotnak, N Slamon, L Smith, J Soprano, K Soren, T Stanley, S Starling, P Steuber, B Strjwieski, A Taliati, P Teaford, M Teshar, A Thomas, K Tieves, O Titus, R Tower, M Trent, S van Schaik, D Vanderbilt, L Variotta, M Vasquez, K Vogt, B Voigt, P Vuguin, E Walton, A Warwick, W Waz, J Weiner, L Weiner, T Weinstein, J Welch, L Widdice, M Winkler, S Witchel, N Yeager, K Yen, C Yost, S Yussman, A Zubrow

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