

Perceptions of the medical home among inner city families

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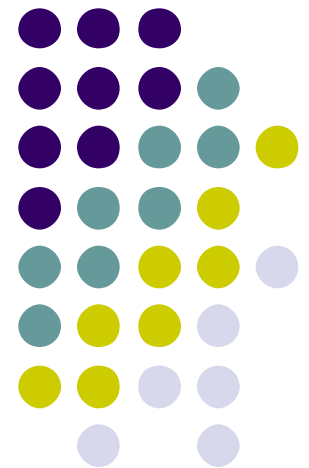
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Medical Home



- American Academy of Pediatrics states that every child should have a medical home
- Seven medical home domains
 - Continuous
 - Accessible
 - Comprehensive
 - Coordinated
 - Family centered
 - Compassionate
 - Culturally effective

Importance of a Medical Home



Aspects of Medical Home have been associated with

- Higher rates of well child checks
- Fewer sick visits
- Higher immunization rates
- Increase family satisfaction
- Increased appointment keeping of well-child checks.
- Parental behavior changes in response to medical advice
- Cost-effectiveness

Starfield, B. Primary Care: Concept, Evaluation, Policy, 1992

Irigoyen, M., S. E. Findley, et al. (2004). "Early continuity of care and immunization coverage." Ambul Pediatr 4(3): 199-203.

Medical Home and Different Populations



- Awareness of medical home is different among various groups
 - Family centered care: Latino and black parents felt providers did not understand their child-rearing practices
 - Compassionate care: Black, Latino and other ethnic minority patients often mistrust their medical provider
- Family's identification with a medical home is likely influenced by how they weight the different attributes
- Research is needed to understand how families think about and value medical homes



Objective

Among families who seek pediatric primary care at an inner-city practice, determine:

- (i) relative importance of the medical home attributes or domains
- (ii) awareness of a medical home relationship and its attributes



Study Community

Washington Heights/Inwood, NYC

- Population of 270,700 as of 2000
- 71% Latino
- 51% mothers are foreign born
- 50% families receive Medicaid
- 31% live below the poverty line



Methods

Study Design:

Cross-sectional survey of parents w. children <19 yrs.

Study population: 344 families

- Primary care clinic (n=129)
- Child Advocacy Center (n=87)
- Pediatric emergency department (n=128)
- Bilingual: 57% English, 43% Spanish

Characteristics of Study Population



- Children's Characteristics:
 - Mean age: 6.1 ± 5.5 years
 - Roughly equal female (52.9%)/male (47.1%)
 - Latino (78.1%)
 - Publicly insured (79.3%)
 - Had less than excellent health status (68.4%)
 - Received primary pediatric care at community health center (64.5%)
- Maternal characteristics:
 - Less than HS education (29.8%)
 - Spoke English primarily at home (59.5%)
 - Limited English proficiency (30.9%)
 - Foreign born mother (61.8%)

Medical Home Survey



- Questions:
 - Previously validated surveys on medical home domains
 - Parent's Perceptions of Primary Care Measure (P3C)
 - National Survey of Children's Health
 - National Survey of Early Childhood Health
 - subscales developed by Nelson *et al* (trust) and Ortega *et al* (medical home)
 - New questions developed as needed
- Responses
 - 4 or 5 point Likert scales or dichotomous Yes/No
- Survey instrument pre-tested in the target population
 - Forward and backward translated to ensure linguistic and cultural equivalency



Variables

- Outcome Variables
 - Medical home attribute/domain experience
 - Overall medical home experience
- Exposure Variables
 - Child's age, gender, race/ethnicity, insurance, child health status
 - Maternal English proficiency (LEP), education, immigration status
 - Provider context: patient-doctor racial/ethnic concordance, type of primary care site, and location of survey

Statistical Analyses



- Chi-Square test used to assess differences in the distribution of the domains
- Multivariate logistical regression used to assess relative importance of domains controlling for parent and provider characteristics that had a significance of $p < .10$ on bivariate analyses



Overall Medical Home Status

- 83.2% identified a regular doctor for their child
 - 10.1% did not have any **one** provider who saw their child most often in the previous 12 months
- Only 32% of patients had a medical home
- Characteristics associated with absence of medical home:
 - Older children
 - Child in fair-poor health
 - Lacking health insurance
 - Mother had limited English proficiency
 - Mother w/out HS education
 - Survey completed at primary care clinic
 - Discordance or racial-ethnicity of doctor vs. patient

Multivariate Predictors of Absence of Medical Home Relation



- Children in less than excellent health
 - AOR 2.24 95% CI: 1.23-4.10
- Curvilinear age:
 - Children ≤ 5 years old (AOR 3.56 95% CI: 1.68-7.55)
 - Children >10 years old (AOR 2.42 95% CI: 1.08-5.43)
(compared to children 6-10 years old)
- Mothers with limited English Proficiency
 - AOR 2.47 95% CI: 1.22-5.01

Medical Home Domain Patterns



- Over 75% of children had accessible, family centered, and/or compassionate care.
- Fewer than 75% had comprehensive, culturally effective, continuous, and/or coordinated care.

Factor Analysis to Create Medical Home Domain Variables



- Qualities of care responses recoded into scores 0-100
- Factor analysis with Varimax rotation, forcing seven factors representing the seven medical home attributes
 - Forward and backward elimination
 - 1) *A priori*: Factor loading consistent with AAP attribute characteristics
 - 2) Empirical: Eliminate redundant loadings and loadings less than .4
- Medical home domain variables: Averaged individual scores for the variables loaded onto that domain factor, giving average 0-100 for domain
 - Parents of children whose average score for an attribute was ≥ 75 were considered as having that medical home attribute
- Overall medical home: parents of children who had a domain score of ≥ 75 in *every* domain were considered to have a medical home

Care Qualities associated with Medical Home Domains (based on factor analysis loadings)



Accessible

Got needed care right away
Can obtain help by phone

Continuous

Continuity with personal doctor/nurse
Continuity w. well-child checks
Continuity w. sick visits

Comprehensive

No problems with services
Helps with services
Follows- up on services

Coordinated

No problems getting specialist
Helps with specialist/referrals

Family-Centered

Shared decision making
Spends adequate time
Explains well

Discusses pro/cons

Compassionate

Doctor listens
Trusts doctor
Can tell doctor anything

Culturally Effective

Interpreter available
Written instructions in
native language

Relative Importance of Medical Domains



Order of relative importance (total sample)

1. Comprehensive
2. Accessible
3. Continuous
4. Family centered
5. Compassionate
6. Coordinated
7. Culturally effective

Continuity of Care Domain Rank Differences



- Child's age affected preference for continuity of care!
 - Parents of children 6-10 years old (11.3%) were more likely to rate continuity as most important compared to those of children \leq 5 years old (2.4%) and children >10 years old (1.4%)($p < .01$)
- Parents who spoke English primarily at home (7%) were more likely to rate continuity as most important compared to those who did not speak English primarily (1.8%)($p < .05$)
- No other differences in ranking among different racial/ethnic groups, English proficiency, insurance status, immigration status, or child health status

Medical Home Domains Associated with Child Characteristics



- Family- centered care :
 - Less for children with poorer health status reported (71.4% vs. 85.9%; $p < .01$)
 - Less for Uninsured children (66.7% vs compared to 74% with Medicaid and 93% with private insurance; $p < .05$).
- Accessible care
 - Less for uninsured children (50% vs 82.7% Medicaid and 97% private insurance; $p < .05$).
 - Less for children less than 2 years old (64.9%) compared to children 2-5 years old (88.1%), 6-10 years old (94.1%) and greater than 10 years old (87.8%)($p < .01$)
- Continuity of Care:
 - Best for families of children seen in a physician's office reported the best continuity of care (76.8%) compared to those seen in a community health center (64.6%), hospital based clinic (60%), or other type of place (20%)($p < .05$).

Maternal Characteristics Associated with Medical Home Domains



- Coordination of care : Better for Latino than non-Latinos (75.3% vs. 54.2%; $p < .05$)
 - BUT: Families with limited English proficiency reported worse coordinated care (65.1% vs. 86.1%; $p < .05$).
- Accessible care and family centered care both affected by mother's education:
 - Less accessibility for mothers w less than HS educ (66.7% vs 88.7%, $p < .01$)
 - Less family centered care for mothers w less than HS educ (67.1% vs. 79.2%; $p < .05$).

Racial/ethnic patient-provider concordance enhances culturally effective care



- Best culturally effective care for families seeing a provider who was the same race/ethnicity as themselves (79.2% vs. 57.5%; $p < .05$).

Summary of Findings



- Only a third of inner city children surveyed had a medical home, even though most claim to have a regular primary care provider.
- Mother's language proficiency, child's health status and age were better predictors of having a medical home than were insurance or having a regular doctor.
- The medical home domains most likely to be “real” for families are accessible, family-centered, and compassionate care.
- Missing medical home domains for these families are comprehensive, continuous, both top priorities for these families, as well as coordinated and culturally effective
- There is widespread agreement among the families on the relative importance of the medical home domains. The absence of two of the key domains from their actual medical care situation suggests that efforts need to focus on facilitating the desired, top priority domains.



Limitations

- Convenience sample
- Findings may be limited to this community



Future Research

- Need better understanding of presence and perceptions of medical home in other populations
- Should consider differences in perceptions of medical home when designing programs to foster medical homes

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