Trust in the Medical Profession Among Adolescents in an Emergency Department

Kelstan L. Ellis, DO, MS-CR, MA,
University of Kansas Medical Center

Kimberly Randell, MD, MSc,
Childrens Mercy Hospitals and Clinics

John Lantos, MD, and
Childrens Mercy Hospitals and Clinics

Melissa K. Miller, MD
Childrens Mercy Hospitals and Clinics

Abstract

Objective—To assess trust in the medical profession among adolescents in an urban pediatric emergency department (ED) and explore factors associated with trust.

Methods—We used a computerized survey to assess personal trust, perceived trust among family/friends, healthcare utilization, general and genital exam preferences, health behaviors, and demographics among youth aged 14–19 years. The primary outcome was the mean composite score of a validated 5-item scale. Responses were summed (range 5–25); higher scores indicated greater trust. We compared trust between subgroups using the t-test for independent samples.

Results—We enrolled 150 adolescents (80% of approached), 146 completed the survey (mean age 15.6 years; 40% male; 36% African American, 40% White; 17% Hispanic; 29% commercial insurance). The mean trust score was 19.51 ± 3.1 (range 7–25), indicating a fairly high level of trust. Trust was not associated with race, ethnicity, gender, type of insurance, or utilization. The mean score for those with high paternal trust was higher than those reporting low paternal trust (19.8 ± 2.2 vs. 15.3 ± 5.7 , $p=0.02$); there was no association with perceived trust among mothers or friends. Preference for a chaperoned genital exam was associated with lower trust and female gender.

Conclusions—Adolescents in this ED reported high levels of trust in the medical profession and trust was not associated with race, ethnicity, gender, insurance, or healthcare utilization. Youth with lower trust preferred chaperoned genital exams. Adolescent trust may be influenced by perceived trust among important adults. Exploration of these associations appears warranted to facilitate optimal sexual health outcomes.

Medical trust, the belief that physicians or the medical profession has regard for an individual's best interest, is a key factor in patient-physician relationships. Prior studies with

adults show that minority groups have less trust in physicians and the medical profession than non-minority groups. Further, adults with lower trust do not seek health care as frequently as those with higher levels of trust. (1–3). Parents from minority groups are also more likely than other parents to have low trust in their child's physician (4, 5).

To date, few studies have explored whether these findings hold true for adolescents. In youth infected with human immunodeficiency virus (HIV), greater trust was associated with positive medication attitudes but not associated with clinical outcomes (6). And in our previous work, we found some urban minority youth had high levels of trust while others had concerns about unnecessary tests or treatments and personal safety as well as perceptions of dishonest communication by medical staff (7). Given the emerging autonomy and increased assumption of personal responsibility for healthcare that occurs as part of adolescence and the role of trust in adolescent receipt of key healthcare services, improved understanding of adolescent trust in the medical profession may facilitate improved healthcare-seeking behaviors resulting in improved outcomes for this population.

The objectives of this study were to 1) describe adolescent trust in the medical profession, 2) explore perceived trust among normative influences (e.g., friends, parents) and 3) assess factors associated with trust (e.g., demographics, utilization, exam preferences). We hypothesized that African-American youth would report lower trust than other adolescents.

METHODS

We conducted a cross-sectional survey of adolescents in the ED from a Midwestern children's hospital system. The urban ED is a level one trauma center and has approximately 70,000 annual visits. The patients are primarily non-White (68%) with government-issued or no insurance (80%). The hospital Institutional Review Board approved this study and waived the requirements for parental and written informed consent, consistent with guidelines for adolescent research participation.

Enrollment

We included patients if they were seeking care for any reason and were aged 14–19 years. Subjects were excluded if they did not speak English, had severe illness or significant cognitive impairment (as determined by the ED treating team), had complaints involving sexual assault or psychiatric issues, or were wards of the state. A convenience sample was obtained across a wide range of hours and days of the week.

One author (KE) and research assistants identified potential participants through computerized tracking boards, which logged visit information in real time. They determined whether the patient met inclusion criteria, then asked the treating ED provider about recruitment suitability. For minors seeking care for non-reproductive complaints, we provided a brief information sheet describing the study to parents and potential participants and obtained parental permission to obtain verbal assent from the adolescent in private. For those with reproductive complaints and those aged ≥ 18 years, parental permission was not required. During assent/consent and computerized survey administration for all participants, the adolescent and the recruiter were alone in a private room.

Measures

A multidisciplinary team developed the survey based in part on national surveys, review of the pertinent literature, and findings from our previous work (2, 8, 9) We iteratively pilot-tested the survey for ease of use. No significant issues were identified with the final version, which took about 10 minutes to complete.

- Trust in the Medical Profession: We used a 5-item scale developed by Dugan et al to measure trust in the medical profession. Participants responded to five statements (e.g., “A doctor would never mislead you about anything”) using a Likert scale (5=strongly agree to 1=strongly disagree). The Flesh-Kincaid reading level was 5.5. Dugan et al. evaluated this abbreviated scale with English-speaking, predominantly White adults in the US and found adequate construct validity and reliability (Cronbach’s alpha was 0.77).
- Additional items evaluating trust: We included six individual items (sometimes modified) from the literature involving adult populations as well as items we created based on previous work (e.g., “I think doctors might experiment on me or treat me like a lab rat”).
- Exam Preferences: Two items assessed exam preferences (chaperoned/alone/no difference) for general and genital exams. (10)
- Subjective norms: Two items assessed perceived trust among important influences (e.g., “How do most of your good friends feel about doctors?”) using a 5-point Likert scale (1=Trusts doctors completely, 5=Has no trust in doctors).
- We collected data on health risk behaviors, healthcare utilization, and demographics.

Analysis

We used descriptive statistics to report responses to trust items, exam preferences, and behavioral and socio-demographic characteristics. The primary measurement of interest was the composite trust score of the 5-item scale for each participant. Responses were summed (range 5–25); higher scores indicating greater trust. We compared mean scores between subgroups (e.g., White vs. African American) using the t-test for independent samples. Perceived trust of influential adults and friends was collapsed to high or low trust. We used SPSS for Windows for data analysis (SPSS Inc, Chicago, IL, USA).

Sample Size

We hypothesized that trust would be lower among African-Americans compared to Whites. A sample of 30 in each group provided 80% power to detect a 17% difference between groups, using a two group t-test with a two-sided significance level of 0.05.

RESULTS

Participants were enrolled April through July 2014. Of 187 patients approached, 150 (80%) enrolled and 146 completed the survey. Lack of desire to participate and acute illness were the most common reasons for refusal. Compared with study participants, no race or age

differences were observed among those who refused to participate. Sample characteristics are presented in Table 1. The mean age was 15.6 years; 40% were male; 36% were African American, 40% were White; 17% were Hispanic; 29% had commercial insurance. About half (56%) had a routine health visit in the previous 12 months and 34% used the ED for their most recent medical care.

Trust In the Medical Profession

Primary outcome—The mean trust score for all participants was 19.51 ± 3.1 (range 7–25). Trust did not vary by race (White vs. African American), ethnicity (Hispanic vs. non-Hispanic), gender, insurance status (commercial vs. other), or age (14–15 vs. 16–18) (Table 2).

Other assessments—Some respondents “agreed/strongly agreed” with statements that doctors might perform unnecessary tests (15.8%) or exams (11.0%). Many (22.6%) “agreed/strongly agreed” that doctors might not keep information private. Few “agreed/strongly agreed” that doctors might experiment with patients “like a lab rat” (4.1%) or might administer unsafe medications (6.3%). Few (10.3%) “agreed/strongly agreed” that they can trust a doctor who is the same race or ethnicity as them more than a doctor of a different race.

Perceived Trust among Friends and Influential Adults

Most (58%) reported their good friends trusted doctors “completely or most of the time”. Among those identifying their mother as their main adult influence ($n=100$), 87% reported their mother trusted doctors “completely or most of the time”. Among those identifying their father as their main adult influence ($n=18$, 15 of whom were male), 78% reported their father trusted doctors “completely or most of the time”. The mean score for participants who reported high paternal trust was higher than for those who reported low paternal trust (19.8 ± 2.2 vs. 15.3 ± 5.7 , $p=0.02$). There was no association between participant trust score and perceived trust level among mothers or friends.

Preferences for Health Exams

For general health exam preferences, participants responded “alone” (11.0%), “with parent or guardian” (33.5%), and “no difference” (55.5%). For genital exam preferences, participants responded “alone” (48.3%), “with parent or guardian” (21.0%), and “no difference” (30.7%). Compared to females, more males preferred to be alone when receiving a genital exam (60% vs. 40%, $p=0.007$). Preferences for chaperoned genital exam did not vary by race, ethnicity, insurance status, previous sexual experience, or age. Participants who preferred chaperoned genital exams had lower trust scores compared to those responded alone/no difference (18.8 vs. 20.2 $p=0.009$).

Healthcare Utilization

Many reported receipt of recent well care and having a primary care physician (Table 1); there was no association with trust. Few participants reported prior counseling on birth control or condoms (26.7%) or prior STI evaluation (18.5%). Counseling (2.1% vs. 50.0%,

$p<0.001$) and STI evaluation (11.7% vs. 54.3%, $p<0.001$) were more likely among sexually experienced youth than non-experienced youth. Among sexually experienced youth, receipt of either service was not associated with trust.

DISCUSSION

Adolescents in this pediatric ED reported high levels of trust in the medical profession and the mean trust score was not associated with race, ethnicity, gender, healthcare utilization, or insurance status. Males were more likely to prefer to be alone for a genital exam and preference for a chaperoned genital exam was associated with a lower mean trust score among all participants. Adolescent trust was associated with perceived paternal trust levels, but not with perceived trust among mothers or friends.

Our results demonstrate high levels of trust for this sample of youth. The mean score was higher than that reported for adults in a large study using the same scale (19.5 ± 3.1 vs. 14.97 ± 3.38 , $p=0.9$) (8). This may be due to differences in the populations (e.g., mean age, race/ethnicity, geographic region) or our use of a scale that has not been validated with adolescents. Future efforts to validate this (or another brief) scale with diverse groups of adolescents will facilitate further understanding of the adolescent patient-provider relationship and warrants additional investigation.

Several studies demonstrate associations between trust levels and race among adults, with lower trust reported among African-American when compared to Whites (3–5). Further, adults with lower levels of trust are less likely to utilize health services (1, 2) And among adolescent females, McKee et al reported those with lower levels of trust had less self-efficacy to obtain confidential care (e.g., “tell a doctor something very personal”) (11). Interesting, we did not find a similar association between trust and race overall or between trust and previous utilization of reproductive services (among sexually experienced youth). The reasons for these differences are not clear though the use of an instrument that has not been validated with adolescents may account for some of the observed differences in our study.

Adolescents frequently report that parents and friends are key sources of health-related information and often influence healthcare-decision making (12–15) Among our participants, perceived paternal trust was associated with adolescent trust—while trust among mothers and friends was not. While low trust in the medical profession has been described among adult males(5), we lack knowledge about the generational transmission of healthcare values and thus, this finding warrants further investigation.

The literature demonstrates that preference for presence of a chaperone during exams is more often expressed by females and younger adolescents (10, 16, 17). Kapphahn et al. reported that involvement in potentially risky behaviors (e.g., sexual intercourse) was associated with preference for private exams (10). Among our participants, female gender and lower trust were associated with chaperoned exam preference, age and sexual experience were not. Practitioners should ask for and accommodate individual preferences to facilitate both satisfaction and optimal health care delivery.

Our study has limitations. The use of a single Midwestern site may limit generalizability to youth in other regions. While this scale has been extensively tested with adults, it has not been validated with adolescents. We used a convenience sample and have no information on trust among adolescents who presented at other times or who refused to participate. Social desirability bias may have influenced participant responses.

Conclusion

Adolescents in this ED reported high levels of trust in the medical profession and trust was not associated with race, ethnicity, gender, insurance, or healthcare utilization. Lower trust was associated low perceived paternal trust and preference for chaperoned genital exam. Exploration of these associations appears warranted to facilitate improved healthcare delivery for adolescents.

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Table 1

Participant Characteristics

	N (%)
Age in years (mean, SD)	15.6 ± 1.4
Female gender	87 (60)
Race	
White	59 (40)
African-American	53 (36)
Hispanic ethnicity	25 (17)
Commercial insurance	38 (29)
Well visit in previous 12 months	82 (56)
Previous sexual experience	48 (33)
Used ED for most recent care	50 (34)
Has primary care physician	115 (78)
Well check in previous 12 months	82 (56)

Table 2

Factors Associated with Adolescent Trust