

BRIEF REPORT

Pre-clinical versus clinical medical students' attitudes towards the poor in the United States

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Abstract

This study assessed the poverty-related attitudes of pre-clinical medical students (first and second years) versus clinical medical students (third and fourth years). First through fourth year medical students voluntarily completed the Attitude Towards Poverty scale. First and second year students were classified together in the preclinical group and third and fourth year students together in the clinical group. A total of 297 students participated (67% response rate). Statistically significant differences were noted between pre-clinical and clinical students for scores on the subscales personal deficiency ($P < 0.001$), stigma ($P = 0.023$), and for total scores ($P = 0.016$). Scores across these subscales and for total scores were all higher in the clinical group. The only subscale which did not show statistical significance between pre-clinical and clinical students was the structural perspective. Medical students in their clinical training have a less favorable attitude towards the poor than their preclinical counterparts.

Key Words: *Attitude; Social stigma; Medical students; Poverty; United States*

With the recent passage of and implementation of the Affordable Care Act in the United States, insurance coverage will be provided to an unprecedented number of Americans, including an increasing number of previously underserved or poverty-stricken individuals. With an influx of newly insured patient populations, it is essential to analyze current medical students' attitudes towards the poor in the hopes of preventing decreased levels of care to the previously uninsured and underserved population, and nurturing a more authentic, compassionate core of professional service. Several years ago it was noted that the literature on medical students' attitudes towards the poor was scant and dated [1]. Unfortunately, despite the importance of this topic and the increasing number of economically disadvantaged individuals who will now have ac-

cess to care, a gap remains. Therefore, it is critical to better understand current medical students' attitudes towards the poor as they progress through medical school from preclinical to clinical education. The current study builds on the work of Crandall et al. [2,3] from years ago and assesses the poverty-related attitudes of pre-clinical medical students (first and second years) compared to clinical medical students (third and fourth years). We hypothesized that medical students in their clinical years will have less favorable attitudes towards poverty and poor people compared to their pre-clinical counterparts.

Participants were first through fourth year students enrolled at one community-based Midwestern United States medical school. Participants were primarily White with an average age range of 23-27. With institutional review board exemption, and explicit permission for its use from the author, students voluntarily completed the validated, shortened form of the Attitude Towards Poverty (ATP) scale between February and April of 2014 [4,5]. First and second year medical students were surveyed during large group lectures, whereas third year

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medical students were surveyed during dedicated didactic time in clerkships. Fourth year medical students were sent a link to the survey via e-mail. No personal identifiers were used to ensure confidentiality. First and second year students were classified together in the preclinical group and third and fourth year students together in the clinical group. The ATP scale assesses a range of attitudes towards the poor and poverty using three subscales. The shortened form of the scale employs 21 statements using a 5-point Likert scale indicating the extent to which students agree/disagree. In our study, 5 = strongly agree and 1 = strongly disagree. The subscales measure a range of attitudes towards poverty and poor people [5]: Personal deficiency focuses on individual attributes or qualities such as poor people being different from the rest of society (7 items, scored from 7-35); Stigma addresses stigma perceptions of poverty such as intelligence differs between poor and non-poor people (8 items, scored 8-40); Structural perspective pertains to structural explanation of poverty such as being poor is beyond one's control (6 items, scored 6-30); Structural perspective subscale was reverse scored as these statements were positive-stated. Internal consistency has been reported at 0.87. For the 21-item ATP scale, the total scores could range from 21-105. Lower scores indicate a more favorable attitude towards the poor. Higher scores indicate less favorable attitudes towards the poor. Analyses included descriptive statistics and t-tests. Data were analyzed using IBM SPSS ver. 21.0 (IBM Co., Armonk, NY, USA).

A total of 297 students completed the ATP scale. After removing incomplete surveys, a total of 277 surveys provided useable data. Response rates for the preclinical group of first and second year students were 100% (104/104) and 77.4% (82/106), respectively. For the clinical group of third and fourth year medical students, response rates were 57.5% (54/94) and 53.3% (57/107), respectively. Table 1 provides a comparison of mean scores, standard deviations and P-values (significance level $P < 0.05$) for t-test for the three subscales (personal deficiency, stigma, and structural perspective), and a total score for the preclinical and clinical cohorts. Scores on the subscales personal deficiency ($P < 0.001$), stigma ($P = 0.023$), and total scores ($P = 0.016$) were all higher in the clinical group. The

only subscale which did not show statistical significance was the structural perspective.

Clinical medical students (i.e., third and fourth years) have a less favorable attitude towards the poor than their preclinical counterparts (i.e., first and second years). In line with the findings by Crandall et al. [2,3], the current study supports that medical students' attitudes towards the poor are less favorable as they progress through medical school. The current study adds to the literature by specifically identifying the particular areas in which medical students' attitudes towards the poor are less favorable. Clinical medical students had statistically significant less favorable attitudes towards the poor on the personal deficiency subscale, stigma subscale, and overall total scores. The subscale without significance, the structural perspective, deals with statements pertaining to society's role in helping the poor. Medical students, regardless of year in school, scored in the neutral range as a whole suggesting mixed feelings regarding an individual's responsibility versus that of society when it comes to addressing poverty. This raises the question of medical students' views related to social justice, and perhaps an opportunity for curricular advancement in this area.

The attitudinal differences between pre-clinical and clinical students may reflect the notion that when students enter medical school they start pragmatic and noble-minded, with a sense of duty to others. Some have hypothesized that an 'empathetic erosion' occurs in the clinical years [6,7], which might extend a fortiori to poor patients. Other reasons for a less favorable attitude towards the poor with progression of medical education is likely multifactorial, and might perhaps include increasing financial debt, pending health care reform, decreased reimbursements for services provided, poor compliance from patients of lower socioeconomic statuses, and political affiliation, moral distress, and the structure of the curricula itself [7]. Additional contributors to clinical students having less favorable attitudes towards the poor could be exposure to clinical preceptors with stereotypical and negative attitudes towards patients in poverty.

Limitations of this study included a response bias. Response rates for first and second year students were 63%, but response rates for clinical students were 37%, which could suggest the

Table 1. Descriptive statistics and P-values of preclinical versus clinical students for subscales of Attitude Towards Poverty scale in medical students done between February and April of 2014 in the United States

Subscales	No. of items	Maximum score	Preclinical students	Clinical students	P-value
Personal deficiency	7	35	13.71 ± 4.24	15.76 ± 4.46	< 0.001
Stigma	8	40	20.08 ± 6.31	21.86 ± 6.29	0.023
Structural perspective	6	30	14.36 ± 4.10	14.42 ± 3.25	0.891
Total score	21	105	48.15 ± 12.25	51.69 ± 11.02	0.016

Values are presented as mean ± standard deviation.

possibility of response bias as the sample may not be fully representative. Additionally, as the nursing literature has shown that personal experiences impact attitudes towards patients, this study's results are limited by not knowing the particulars of the participants that could influence their attitudes towards poverty, such as religious beliefs, political affiliation and views, experiences working with underserved populations, socioeconomic status, and influence of clinical preceptors' attitudes towards patients in poverty to name a few.

Further directions of this study include analyzing factors which contribute to why medical students' attitudes towards the poor become less favorable as they advance. A better understanding of these factors can ultimately lead to the implementation of interventions and educational strategies aimed to counteract these attitudes. While our study was cross-sectional in nature, future studies could employ a longitudinal study design to determine better understand curriculum efforts targeted at improving attitudes of disenfranchised patient populations.

In conclusion, the less favorable attitudes towards the poor hypothesis is supported for medical students in their clinical years. Educational interventions to overcome these phenomena should be introduced since there will be an increase in medical needs from the poor according to Affordable Care Act in the United States.

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CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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SUPPLEMENTARY MATERIAL

Audio recording of the abstract.

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