

# Attitudes of United States Physician Assistants Toward Persons with HIV/AIDS

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**Abstract.** Several studies have shown that a large number of healthcare workers have negative attitudes toward persons infected with HIV early in the epidemic, but a more positive shift has occurred in these attitudes over the last decade. These studies focused mostly on the perceptions of physicians, surgeons, and nurses. However, recent surveys about attitudes of mid-level providers, such as Physician Assistants (PAs), a large purveyor of health care services, are missing. **Methodology:** This cross-sectional survey was completed to determine the current attitudes of practicing PAs concerning individuals with HIV/AIDS. A nationwide randomized sample of 1,500 PAs was surveyed through the United States (U.S.) mail. The AIDS Attitudes Scale (AAS) developed by Froman, Owen and Daisy in 1992 was used as a self-reported measure of attitude toward persons with AIDS. The AAS is viewed as a reliable and valid Likert-based instrument that measures HIV/AIDS empathy and avoidance among healthcare workers. In the scale, avoidance is described as fear of contracting the disease, and empathy is described as supportive attitudes towards persons living with HIV/AIDS. The results were analyzed using descriptive, t-test, and ANOVA statistics. **Results:** The response rate was 16% (n=246). A majority had high empathy, low avoidance, and positive general attitude scores. Respondents living in the South had the highest avoidance and lowest general attitude scores compared with those living in other regions (ANOVA,  $p < .05$ ). **Conclusion:** The results were consistent with similar current studies of healthcare workers, which demonstrated supportive attitudes towards persons with HIV/AIDS.

## 1. Introduction

Deaths due to HIV/AIDS in the U.S. have been declining in the past decade due to advances in management of the disease. The decrease in mortality is attributed to the improvement of testing, multi-drug treatments, and the preventative education that has been provided throughout the U.S. Additionally, the outpatient treatment has improved, moving the majority of management out of the hospitals. Therefore, the number of clinicians managing HIV/AIDS patients has increased dramatically. Historically, negative attitudes towards persons living with HIV/AIDS have affected the quality of care they received. There have been several studies investigating the attitudes of physicians, surgeons and nurses towards HIV-infected patients throughout the world, although studies on Physician Assistants (PAs) were limited. The purpose for conducting this study was to evaluate the current attitudes of PAs in regard to persons with HIV/AIDS.

## 2. Experiment, Results, Discussion, and Significance

### *Methodology*

A nationwide randomized sample of 1,500 PAs was surveyed through the U.S. mail. The AIDS Attitudes Scale (AAS) developed by Froman, Owen and Daisy in 1992 was used as a self-reported measure of attitude toward persons with AIDS. [1,2] In the scale, avoidance is described as fear of contracting the disease, and empathy is described as supportive attitudes towards persons living with HIV/AIDS. Avoidance and empathy sub-scores were computed by determining mean scores from responses to the Likert-scale questions. Thus, it was expected that the avoidance and empathy scores would range from 1 (strongly disagree) to 5 (strongly agree). A high avoidance score would indicate strong avoidance or negative attitudes towards persons with HIV/AIDS; a high empathy score would suggest strong empathy or positive attitudes towards persons with HIV/AIDS. The general attitude score was computed by creating a difference score: empathy score minus avoidance score. The total score was expected to range from -5 to +5. Positive scores were to indicate a supportive attitude and negative scores were to indicate an intolerant, non-therapeutic attitude. The results were analyzed using descriptive, t-test, and ANOVA statistics.

### *Results*

Respondents had a mean avoidance score of 1.78 with a standard deviation of +/- 0.51 and a mean empathy score of 4.55 with a standard deviation of +/- 0.46. A mean general attitude score was 2.78 with a standard deviation of +/- 0.82. A summary of these scores can be found in Table 1.

Table 1

Avoidance, Empathy and General Attitudes Scores in Regard to the Care of HIV/AIDS Patients (n=237)			
	Mean	SD	Range
Avoidance	1.79	+/- 0.51	1 – 3.18
Empathy	4.55	+/- 0.46	2.33 – 5.00
General Attitudes	2.78	+/- 0.82	0.26 – 4.00

Avoidance, empathy and general attitude score were compared to demographic characteristics. The survey population was divided into two age groups 25 to 38 and 39 to 72. The mean avoidance score for the 25 to 38 year olds was 1.88, while the score for 39 to 72 year olds was 1.70 with a standard deviation of +/- 0.49 (p<.01). The mean general attitude score of the respondents between the ages of 25 to 38 was 2.67, while the group of 39 to 72 was 2.89 with a standard deviation of +/- 0.75 (p<.05)

Males had an avoidance score of 1.93 and females 1.72 with a standard deviation of +/- 0.54 (p<.01). Males had a mean empathy score of 4.46 while females 4.61 with a standard deviation of +/- 0.56 (p<.05). Males also had a mean general attitude score of 2.56 and females 2.89 with a standard deviation of +/- 0.91 (p<.01).

Married respondents had a mean avoidance score of 1.85 while single respondents had a score of 1.65 each with a standard deviation of +/- 0.52 (p<.01). Married PAs had a mean general attitude score of 2.70 while singles had a score of 2.95 each with a standard deviation of +/- 0.83 (p<.05).

Further analysis by state of practice (recoded into the four United States Census Bureau regions [Northeast, Midwest, South and West]), revealed a significant difference between the Northeast and South regions (Table 2). Means and standard deviations of avoidance, empathy, and general attitude scores were calculated based on these census regions. The South had the highest avoidance scores, 1.91 with a standard deviation of +/- 0.49.

Table 2

Means and Standard Deviations of Avoidance, Empathy, and General Attitude Scores Based on Census Regions (One-Way ANOVA)			
Census Region	Avoidance (+/- SD)	Empathy (+/- SD)	General Attitudes (+/-SD)
Northeast	1.66 (.49), n=51*	4.48 (.53), n=51	2.81 (.83), n=50
Midwest	1.81 (.44), n= 54	4.54 (.46), n=54	2.73 (.83), n=54
South	1.91 (.49), n=77*	4.54 (.45), n=78	2.66 (.79), n=76
West	1.72 (.55), n=55	4.69 (.38), n=53	2.96 (.79), n=52

\*P<.05

Overall, the respondents had high empathy and low avoidance scores. Additionally, the respondents had a positive general attitude score. However, those that were younger and married and male were less supportive in their attitudes towards patients with HIV/AIDS while those who were older and single and female were more supportive in their attitudes towards these individuals.

The overall scores suggest a supportive and therapeutic attitude towards persons with HIV/AIDS, which was different from what was seen earlier in the epidemic among most health care providers. [3] Martin stated that one reason for a shift from negative to more positive attitudes was the fact that health care providers were becoming more knowledgeable and experienced with the management of persons with HIV/AIDS. [3]

### 3. Conclusions

The importance in this study is reflected by the fact that this is one of the first known studies conducted recently to assess the attitudes of practicing PAs towards persons with HIV/AIDS. This study appears to reveal that PAs who responded to the survey express supportive attitudes towards persons with HIV/AIDS. This finding is consistent with other health professionals. [2, 3, 4]

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