The Profession of Psychology Scale: Sophisticated and Naïve Students’ Responses
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The Profession of Psychology Scale (Rosenthal, McKnight & Price, 2001) was used to investigate whether taking more psychology courses results in a more accurate understanding of what is required to become a psychologist. Data indicate that though misconceptions exist in both Naïve students (those who had not completed any psychology courses) and Sophisticated students (those who had completed five to fourteen psychology courses), the concepts that most define what a psychologist is and what they do (e.g. minimal qualifications, lack of prescription privileges) were mastered better by Sophisticated than Naïve students.

The public harbors misconceptions about who psychologists are and what they do. Accurate information concerning the profession is fairly obscure. Even psychology majors are prone to erroneous beliefs (Nauta, 2000), which can result in inappropriate career choices (Nauta, 2000).

Rosenthal, McKnight, and Price, (2001) assessed perceptions of the profession of psychology with the Profession of Psychology Scale (PPS). Responses of Introductory Psychology students on the PPS indicated that most did not recognize the doctorate as the standard level of training for psychologists. Further, respondents significantly overestimated the number of psychologists who were health care providers (clinicians, counseling and school specialists), as well as the number who are members of a minority group.

The current study examined the effect that the number of undergraduate psychology courses completed had on students’ perceptions of the profession of psychology. The study specifically focused on whether or not taking more psychology courses relates to more accurate understandings of the profession, such as: training requirements, demographics, and job roles and functions. It was hypothesized that the more psychology courses students completed the more knowledgeable they would be of the profession.

Method

Participants
One hundred fifty-four undergraduate students at a small rural southern university completed the Profession of Psychology Scale. All participants were volunteers and registered for one of six undergraduate psychology classes (Introductory Psychology, Psychological Measurement, Abnormal Psychology, Research Designs and Methods, Psychology of Personality or Senior Research Seminar). From this sample, “Naïve” and “Sophisticated” comparison groups were created based on self-reports of the number of psychology courses completed. The 36 students (14 males and 22 females) in the
Naive group reported that they had not completed any psychology courses (high school or college), their mean age was 20.1 (SD = 5.5). All Naive participants were enrolled in an Introductory Psychology class. The 38 students (4 males and 34 females) in the Sophisticated group reported they had completed from five to greater than fourteen courses (Mode = 5, Md = 7); their mean age was 23.2 (SD = 4.6).

Materials

The Profession of Psychology Scale (PPS). The Profession of Psychology Scale is a self-report measure of perceptions of the profession of psychology and psychologists (e.g., qualifications, characteristics, and workplaces). The scale begins with a demographic section. The majority of items that follow require estimating a percentage, the remainder consist of Likert-type, one-choice, choose all that apply, and yes/no items.

Procedure

All participants completed the PPS scale on the first day of class before listening to any lecture material or reading the text (presumably). Students were encouraged to take as much time as necessary and to be truthful. They were assured that their responses would be anonymous and not affect their grades. Some participants received extra-credit for completing the survey.

Analyses

Where appropriate, responses were compared to available factual data; then responses of Naive and Sophisticated groups were compared using a variety of parametric and nonparametric tests for the significance of a difference. An alpha level of .05 was used for all tests.

Results and Discussion

Results are presented in sections grouped by item. A section begins with a summary of what the scale indicates about undergraduates' views of a "typical" psychologist and where appropriate is followed by statistical analyses.

Who are Psychologists? Respondents were asked to provide their estimates of the percentage of psychologists who had certain demographic characteristics. The American Psychological Association (APA) reports that as of 1999, among Ph.D. psychologists, 46% were female and 54% were male (APA, 2003a). The Naive group mean estimate of the percentage of female psychologists was 49.13% (SD = 19.3%), while the Sophisticated group mean estimate was 52.37% (SD = 20.0%). A One-way ANOVA indicated that Naive and Sophisticated mean estimates did not differ significantly \( F(1,72) = 53, p > .05 \). Both groups overestimated the representation of women within the profession but a subsequent Test for Significance of a Proportion (TSP) of the Sophisticated group estimate indicated that the overestimates were not significantly different from reality \( z = .79, p > .05 \).

APA reports that as of 1999, 91% of all psychologists are White, while 9% are People of Color (APA, 2003a). One-way ANOVA results indicated no significant difference between Naive (\( M = 26.0\% \) SD = 14.8%) and Sophisticated (\( M = 24.7\% \) SD = 12.6%) mean estimates \( F(1,72) = 1.16, p > .05 \). Both groups again overestimated, but this time, their estimates of minority psychologists significantly differed from reality (TSP for the Sophisticated group mean is \( z = 3.56, p < .001 \)).

What Do Psychologists Do? The APA Research Office lists the percentage of Ph.D. health service providers (Clinical, Counseling and School Psychologists) as 50% (American Psychological Association, 2003b). To examine perceptions concerning health service providers, respondents answered the following item: "What percentage of psychologists work mainly counseling or guiding adults or children with problems?" One-way ANOVA results indicated no
significant difference between Naïve ($M = 44.3\% \ SD = 24.3\%$) and Sophisticated ($M = 41.7\% \ SD = 17.6\%$) mean estimates $F(1,72) = .28, p>.05$. Both groups underestimated the percentage of psychologist caregivers but a subsequent (TSP) indicated not significantly so (Sophisticated group mean was tested and $z = 1.02, p>.05$).

Another job-related item, “What percentage of psychologists can write prescriptions?” proved very interesting. The exact percentage of psychologists who can prescribe is unknown. However, owing to the small number of states that allow this practice, and the recency of such privileges, it is reasonable to assume that no more than five percent of psychologist can prescribe. The ANOVA indicated that the Naïve group mean estimate ($M = 43.6\% \ SD = 33.9\%$) was significantly different from the Sophisticated group mean estimate ($M = 6.2\% \ SD = 11.8\%$), $F(1,72) = 41.2, p<.001$. While both groups overestimated, the Naïve group’s estimate was over six times as large as that of students in the Sophisticated group who had taken more psychology courses.

**How Do You Become a Psychologist?** A choose-one item on the scale asked “What are the minimal qualifications necessary to be a psychologist?” Choices ranged from “some undergraduate courses in psychology” to a “Doctorate in psychology”. The correct answer is that to become an academic psychologist, you must complete a doctorate in psychology.

Since the data on this item are categorical, a nonparametric Test for Significance of a Difference Between Two Proportions (TSDBTP) was performed. The proportion of Naïve group subjects who answered correctly, converted to a percentage for clarity, (16.7\%) was compared to the proportion of the Sophisticated group subjects who were correct (42.1\%). The TSDBTP test statistic was significant ($z = 3.26, p<.01$), a significantly larger proportion of the Sophisticated group (those with more psychology courses) answered this item correctly.

Three other “yes/no” items relevant to how to become a psychologist were analyzed. These items concerned training that is required for psychological practitioners.

The first item was “In addition to their coursework in order to practice independently a psychologist must have a license from the government.” The number of Naïve group subjects endorsing this item was 34 of 36 and the number of Sophisticated group subjects was 36 of 38. A Chi Square analysis was not possible due to cell size restrictions. However, the data indicate that both Naïve and Sophisticated students are aware of this requirement.

The second item was “In addition to their coursework in order to practice independently a psychologist must complete a minimum number of hours under the supervision of a qualified psychologist.” The number of Naïve group subjects endorsing this item was 34 of 36 and the number of Sophisticated group subjects was 36 of 38. Once again, a Chi Square analysis was not possible due to cell size restrictions. But the “supervision” data again indicate that both Naïve and Sophisticated students are aware of this requirement.

The final item was “In addition to their coursework in order to practice independently a psychologist must undergo personal psychotherapy.” This is a common misperception about clinicians and counselors. The number of Naïve group subjects endorsing this item was 21 of 36 and the number of Sophisticated group subjects was markedly less 10 of 38. A Chi Square analysis was conducted (2 df = 1) = 7.78, p<.01, and indicated that there was a significant difference between Naïve and Sophisticated students, with more Sophisticated students aware of the fact that this requirement was a myth.

**Conclusions**

Regardless of the number of psychology classes completed, students continue...
to harbor several common misconceptions about psychologists. For example, the current study showed that students significantly overestimated the number of minority psychologists. And, while they did not significantly misestimate the number of health care providers who are psychologists in this study, in a previous study (Rosenthal, McKnight, & Price, 2001) they did. Regardless of the number of psychology classes completed, students accurately perceived the need for both a license and supervision to practice independently.

Although misconceptions in both Naïve and Sophisticated psychology students exist, those central concepts that most define what a psychologist is and what they do were mastered better by Sophisticated students than students who had taken no psychology courses. For example, students who had completed more psychology courses were more accurate in assessing minimal qualifications for the profession. In addition, the sophisticated were also more accurate in their estimates of the number of psychologists who prescribe medications, which suggests they are more knowledgeable about differences between psychologists and psychiatrists. Finally, while not as important as training and prescription issues, students with no psychology courses were more likely to believe that practicing psychologists must undergo psychotherapy.

While Nauta (2000) has suggested that misconceptions may adversely affect psychology student career choices, some misconceptions are probably not as potentially damaging as others. For example, it could be argued that perceptions of minority representation in psychology might affect student career choice, but not as much as misunderstanding the training requirements to enter the field. According to the current study, taking more psychology courses seems to partially correct potentially damaging misconceptions. Further research might explore whether non-psychology majors continue to harbor misconceptions throughout their lifetime and explore possible gender differences.

References


Author Notes
A summary of the results of this study was presented at the 49th Annual Southeastern Psychological Association conference, New Orleans LA, March 2003.

If you would like to help gather a nationwide sample with the Revised Profession of Psychology Scale (a shorter instrument) please contact Gary T. Rosenthal, Department of Psychology and Counselor Education, Nicholls State University, P.O. Box 2075, Thibodaux, Louisiana 70310; Email: psyc-gtr@nicholls.edu