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Health Care Research Methods: Design and Analysis
Positive and Negative Factors in Defensive Medicine:
A Questionnaire Study of General Practitioners
Research Article Review #1.

Introduction

The stated purpose of this article was to investigate defensive medical practices among general practitioners in the UK. The actual purpose (by design) was to determine if these practices actually exist in the UK among general practitioners. The study listed two research questions: (1) to examine defensive medical practice in primary care; and (2) to compare these practices with general practitioners' concerns about the risk of being sued or having a complaint lodged. Independent and dependent variables were not clearly identified.
The study was prompted by concern over the impact of the Wilson Report (Summerton, 1994), which the author states may increase negative defensive medical practices, and thus adversely affect quality of patient care delivered. The literature review is broad enough to provide adequate background for support of defensive practice as an area of research concern. The author was not convinced that enough empirical evidence exists about the extent of defensive medical practices. Discussion of the literature is sparse, and no descriptions of previous work are included. No meta-analysis or detailed reviews are presented in this article. The study may be described as quantitative by design, but the results and conclusions are more descriptive in nature.

Method and Procedures

The sampling frame was derived from the complete general practitioner membership of the Medical Defense Union. The author reports taking a systematic (random) sample, however, the list used was in alphabetical order. To effectively use systematic random samples, the population should be listed in random order (Trochim, 1999). Sample size for mailing was 500 physicians; 300 general practice physicians responded and were used for the analysis. No control group was used, and how the analysis would proceed was not discussed in this article. The hypotheses were not clearly defined, and they do not state a relationship between variables. Also, they are stated differently in the abstract compared to that in the introduction, leading to some confusion regarding what the researcher desires to study. However, other information about respondents was collected, such as age, geographic location, and medical school attended. This data could have been used as independent variables and their relationships to the questions under study, thus providing more depth to the conclusions.
The original questionnaire was subjected to a local pilot test, modifications were made, questions from a previous study were incorporated, and expert opinion was sought regarding the suitability of the questionnaire. No background was provided regarding the source of previously used questions nor of the qualifications of the expert review. The questions related to three categories: the likelihood of practice changes related to the possibility of patient complaints; assessment of

knowledge to elicit physician understanding of medical negligence; and requests to indicate level of concern over being sued or having a complaint lodged. Complete scale end points were not described. I inferred from the article that a "likelihood to change" scale was used, but no other details were provided. From my analysis of the questionnaire categories, I inferred that at least three testable hypotheses were possible. Two summary results tables were provided. These were very simple in structure. Labeling was adequate.
Statistical methods used in this study are more appropriate for "yes-no" questions. When questions are scaled, more sophisticated analysis is required (Cooper & Schindler, 2000). For example, an odds-ratio was used to describe confidence intervals, probably due to analysis of variables on an individual basis. If independent and dependent variables were identified, Pearson's product-moment or point bi-serial correlation methods could have been employed. The questionnaire was mailed to 500 physicians taken from the sample. A reminder letter was sent two to three weeks later. No schedule of time constraints was described, and it is not clear if mailing was done all at once or if this was done in subdivisions over time. Psychometrics is described, but not in great detail. Internal validity checks were done. The questionnaire was described as having "face validity," a term with which I am unfamiliar.

Reliability of the questionnaire was not discussed, and no technical appendix was included. Therefore, this study is not reproducible, unless the researcher is willing to provide the tools used for this study. No ethical considerations or consent forms were described by the researcher. A consent form clearly describing the purpose and use of information generated may have been used, but this is not disclosed. A good consent form or disclosure statement contributes to a better response rate and more accurate responses when the respondents are confident about privacy matters and if they believe the results will be useful.

Findings and Discussion

The questionnaire was mailed to 500 physicians. Only those engaged in general practice were analyzed. There was a 60% response (300) among eligible respondents. Representation of the sample population is adequately described. If one has knowledge of the composition of general practitioners in the UK, the representative nature of this sample could easily be determined. Missing values were identified and excluded from the analysis, and they were also identified in the results. Findings were discussed according to the three categories of questions. Two findings demonstrated strong correlations. One finding was found insignificant. The findings were discussed, but it is not clear if discussion is directly related to concerns in the literature or to the individual researcher's concerns.

Conclusions

The discussion of findings relates to the three categories of questions, and thus three conclusions are made. Also, five "key points" are summarized at the end of the article. These findings and key points go beyond the focus of the study, and it may be concluded by the reader that the author developed conclusions that are not supported by this study. For example, the author concludes that the Wilson Report will increase the number of patient complaints lodged, therefore increasing negative defensive practice by physicians. This relationship was not described as a research question and was inconsistent with the original study design.

References

Cooper, D. And Schindler, S. (2000). Business Research Methods (7th ed.). New York: McGraw-Hill.

Summerton, N. (1995, January). Positive and negative factors in defensive medicine: A questionnaire study of general practitioners. British Medical Journal [On-line], 310(6971). Available: http://gateway.ovid.com/rel410/server1/ovidweb.cgi

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WESTERN WASHINGTON UNIVERSITY

Department of Modern and Classical Languages/Linguistics Program

Sample Article Review

Linguistics 402

Cummins, J. 1993. Bilingualism and Second Language Learning. *Annual Review of Applied Linguistics* 13, 51-70.

Cummins notes that aside from the highly charged sociopolitical aspects of the argument about bilingual education, "the interpretation of academic research in regard to bilingualism and language learning has also been subject to volatile debate" (Cummins 1993: 52). Cummins' own approach to second language acquisition is is not free from controversy, and what he presents in this article is basically a review of research which defends a theoretical framework he has espoused since the 70s. After travelling through the maze of Cummins' reasoning, one is faced with the counterintuitive conclusion that the best way to teach English to Spanish-speaking children in the US is through an intensive program of literacy development in the mother tongue.

Cummins' scholarship includes the concepts of linguistic interdependence, common underlying proficiency, basic interpersonal communicative skills, cognitive-academic language proficiency, and the threshold hypothesis. These ideas figure prominently in Cummins' 1993 article. Cummins first discusses the nature of childhood language shift. The Sirén study he reviews clearly indicates that minority mother tongue instruction at the pre-school level effectively prevents child language shift to the majority language. The role of the school in mother tongue maintenance must be shown, since it is a prerequisite for the development of mother tongue literacy, which Cummins maintains a minority child must develop in order to transfer these abilities to the majority language acquired in the extra-curricular context.

Unfortunately for Cummins, the Sirén study is a two-edged sword. In concluding a review of research on the effectiveness of different approaches to the education of minority language children, Cummins states the following: "Specifically, achievement in the minority language is generally sensitive to the amount of instruction in that language but majority language development is relatively insensitive to school exposure. In fact, the trends from a considerable number of programs suggest an inverse relationship between exposure to the majority language and achievement in that language" (Cummins 1993: 63). The evidence from Sirén cited by Cummins suggests that the putative inverse relationship does not exist. Sirén reports on the language behavior of minority language in response to minority-language communication from the mother. If the child responded in a given language, he or she was identified as more fluent in that language. The vast majority (85%) of children in the monolingual minority education treatment remained more fluent in their mother tongue. Of the minority language children submersed in Swedish, only 25% remained more fluent in their mother tongue. Cummins notes, appropriately, that mother tongue education in the school is indeed critical to maintenance. What Cummins does not mention is the fact that even minority language education produces abysmal results in the majority language.

Missing in this article is discussion of the specific technique used to impart L2 at the primary school level. For example, Cummins discusses the results of the Ramírez study, one which shows that little benefit in increased English skills is produced in an immersion program, but what kind of immersion is Ramírez discussing? Cummins omits any mention of this and uses the Ramirez data to support his threshold hypothesis, contending that minority language children need to remain in mother tongue programs even longer! But, there is another interpretation, a rival hypothesis. The structured immersion being described by Ramirez and associates may not be adequate, the techniques ineffective, the program poorly conceived and devoid of meaningful parental participation. Bad structured immersion is no better than sink-or-swim submersion. There is an implicit assumption that the structured immersion used in the TESL of the Ramirez studies is the most effective way to facilitate the acquisition of English, and that its failure to produce results superior to those found in a mother tongue bilingual education programs constitutes an indictment of the approach. Here just the opposite may be true. If the structured immersion is failing to serve needs of students, then mother tongue bilingual education is just as ineffective. The solution, in that case would not be even more mother tongue education, but rather improved techniques for teaching children a second language.

Shaw N. Gynan - 698 words