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PSYCHOLOGICAL/SOCIAL HISTORY REPORT

Giles D. Rainwater and Debora Silver Coe. Melbourne, Florida: Psychometric Software, Inc.

Introduction

The Psychological/Social History Report (Rainwater & Silver Coe, 1988a, 1988b) is a computer-based structured interview that gathers client information and produces a written narrative report. In addition to the information obtained from the standard structured interview, the user may modify the program to include other questions or topics deemed appropriate or necessary for a particular administration.

The first author, Giles Rainwater, earned his Ph.D. from the University of Oregon in 1978. He is currently in private practice. Diane Silver Coe earned her Psy.D. from the Florida Institute of Technology and also maintains a private practice.

The Psychological/Social History Report was developed in order to facilitate the quick and efficient collection of data required for psychological assessment and diagnosis. Development began in 1982 and took approximately 1 year. Ideas for topics and questions were generated from reviewing textbooks and journal literature related to interviewing. Final topic areas and questions derived in part on their suitability for placement into a multiple-choice question-answer format (G.D. Rainwater, personal communication, July 9, 1991). Prior to its release, a prototype was field tested with four psychologists, all of whom were in general clinical practice. Their feedback resulted in the addition of select questions to the instrument.

The instrument was revised in 1983, 1984, and again in 1988. The first revision added branching logic functions, which increased the program's efficiency. The second revision decreased lag time between questions and also introduced an IBM-compatible version of the software. The last revision added the capacity to modify or add questions and topics to suit the individual user's needs. The last edition, which is the focus of this review, is not available for Apple computer users.

The assessment kit includes a manual and a program disk. Paper-and-pencil questionnaires are available separately. To run the software, users need an IBM PC or compatible system and any version of DOS. An earlier version is also available

for Apple and Macintosh systems, but it does not allow the user to edit or add questions and topics.

The examiner's participation in the administration process is minimal. He or she either instructs clients to fill out a paper-and-pencil questionnaire or directs them to the computer for direct input of the data. Once the interview data have been entered into the computer, the examiner can print a copy of the narrative or save the information on disk for future access or word processing. However, should input need to be suspended for any reason, the data cannot be saved and the respondent will have to start from the beginning when ready to resume.

According to the first author, this instrument is suitable for use with adults only (G.D. Rainwater, personal communication, July 9, 1991). The publisher, however, states it can be used to assess both adolescents and adults (J. Redman, personal communication, July 12, 1991). Unfortunately, as the manual does not clarify the issue, ambiguity surrounds this question. Both the publisher and authors concur that anyone with seventh-grade reading ability can complete the assessment, and this apparently was measured by one of the authors, who has a background in assessing reading ability.

The software may be modified by the user in a number of ways that may significantly increase the flexibility and utility of the program. One can alter existing questions, response options, and narrative statements, add new questions, options, and statements, add new topics, and select specific topics to be administered. Users also may add branching sequences to their modifications in order to increase the amount of detailed inquiry and decrease redundant or unnecessary questioning.

The main topics covered in the standard interview are presenting problem, family history, developmental history, education, financial status, employment history, medical history, marital/family status, diet/exercise, and psychological/social stressors. These areas are explored both by the paper-and-pencil version of the interview as well as by the computer-administered procedure. When using the computer to administer the interview, the examiner may elect to alter the order in which topics or questions are presented. Further, the client using the computer may choose to "earmark" particular questions for later discussion or elaboration by pressing a designated key. When computer administration is impractical, the client may complete the written form and the clinician can then enter responses into the computer. The standard printed questionnaire is only suitable for when the program has not been modified. However, the publisher will help in developing and printing customized questionnaires for interested users.

The narrative report presents the data grouped by topics and in the same order that it was acquired. The order of data presentation in the narrative will reflect any changes made from the standard format. The report also identifies "earmarked" and "clinically significant answers." That is, any questions that the client marked for discussion or that the program determined were answered with clinically significant responses are printed along with the client's answer.

Practical Applications/Uses

The Psychological/Social History Report is designed to administer a structured interview, gather basic psychological data, and produce a written narrative from

the information obtained. Because the user is free to add or edit questions and topics, the variables assessed by the software can be greatly expanded. However, along with this greatly expanded utility comes a concomitant increase in the potential for misuse by undertrained individuals.

Branching logic functions can be programmed into any of the modifications, which allows for further exploration of a topic and decreases the frequency of redundant questions. For example, it is possible through branching to flag a question such as "Do you use any street drugs?" If the client acknowledges drug use, the program can be set to inquire automatically then about the use of specific drugs. Once that list is narrowed, branching could allow for further probing regarding frequency of use and so forth. If the client denies drug use, the program can be made to skip the rest of the inquiry and proceed to the next topic. Without branching, respondents would have to answer all questions relating to substance abuse regardless of applicability.

This assessment program has been used in both hospital and private practice settings. According to the first author, sales are restricted to psychologists and other qualified mental health professionals such as social workers and psychiatrists (G.D. Rainwater, personal communication, July 9, 1991). The publishers state that the examiner should be a mental health professional or someone under the supervision of a professional (J. Redman, personal communication, July 12, 1991).

Administration procedures are simple and easy to learn. The process begins by instructing the client to follow the directions that appear on the screen. The program offers a short tutorial covering the keyboard functions needed to answer the questions—how to choose a desired answer, how to back up within a topic, how to change an answer, and, when applicable, how to make multiple responses to a question. Once this training module is completed, the program presents the respondent with the first topic and its related questions. Administration proceeds through each topic area until the entire questionnaire has been presented. Throughout the administration, a "help" line appearing at the bottom of the screen gives a brief synopsis of the necessary keyboard commands. When the administration concludes, the program automatically returns to the main menu and one can print a report based on the client's responses.

As noted previously, the Psychological/Social History Report may be modified in various ways to suit the examiner. Prior to administration, for example, a user may alter the sequence of the available topics and present them in any order deemed preferable or convenient. In addition to the basic topics covered in the standard format, the examiner can add up to 28 other topic areas, each of which may contain up to 20 questions. The system also offers the flexibility of deleting unneeded topics or questions. The manual gives clear, step-by-step instructions on the procedures involved in editing the program.

The time required for a standard administration is approximately 30 to 45 minutes. When a client completes the paper-and-pencil questionnaire, the data can be entered into the computer in approximately 10 minutes. Naturally, as topics are added, the time required for each function increases. The computer processes results and has them ready for printing within seconds after data are entered. Another system option, saving the data to disk, allows accessing and editing the report at the examiner's convenience.

Minimal interpretations of the acquired data are made. The client's answers print out in a narrative-form text corresponding to the topic areas covered during the administration. In addition to any questions "earmarked" by the respondent, the program also notes those responses interpreted as clinically significant (based on the test developers' subjective opinion). When the users modify the program, they can then select what responses will be flagged as clinically significant.

Technical Aspects

No attempts have been made to estimate levels of validity and reliability for the Psychological/Social History Report. The lack of available data makes it difficult to evaluate the suitability of this instrument for any particular use. Structured interviews traditionally have been neglected in the research literature (Morganstern, 1976). Considering their pervasive use in mental health, though, this lack of attention seems remarkable. Studies have shown that structured interviews typically possess characteristics that make them amenable to psychometric inquiry and study (Haynes & Jensen, 1979). The *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1985) state with regard to computerized interviews that "all the standards apply with equal force" (p. 4). As such, an evaluation of the Psychological/Social History Report's technical aspects should include an examination of how well it meets the primary professional standards related to validity and reliability. For a more exhaustive review of which standards this instrument met, the reader is referred to Mattei (1991).

The utility of a structured interview rests in part on evidence of its content-related validity. An examination of how the Psychological/Social History Report was constructed shows that the established procedures for building and demonstrating content validity in an instrument were, for the most part, not followed. To begin with, the developers fail to clearly specify the domain(s) that their instrument represents. The *Standards* (3.3) state that domain definitions and test specifications must be presented in a manner that will allow for evaluating how test items relate to the domains they represent (AERA et al., 1985). Only general content areas are identified, some of which are vague in terms of meaning. For example, the topic area entitled Developmental History implies that the program gathers data on salient aspects of the individual's early development. In fact, little more than basic childhood-related demographic information is gathered.

Another flaw in this construction pertains to the use of subject-matter experts. According to the *Standards* (1.7), when subject-matter experts have been used, their relevant training, experience, and qualifications should be described (AERA et al., 1985, p. 15). Although not mentioned in the manual, the subject-matter experts consisted of four psychologists involved in "general psychological practice" (G.D. Rainwater, personal communication, July 9, 1991). Without this information, one cannot determine whether these individuals were qualified to have served in this capacity.

The *Standards* (3.1) also specify that assessment instruments must be developed in a sound scientific manner. As previously described, the developers consulted

textbooks on interviewing to select a preliminary list of topics and questions. Item selection was determined in part by how suitable a given question was for use with a multiple-choice format (G.D. Rainwater, personal communication, July 9, 1991). This type of selection criteria seems to conflict with the goal of building content validity. Further, once the topics and questions were determined, field testing took place using four local psychologists. According to Anastasi (1982), the use of subject-matter experts is an established part of test development, but tapping them should occur before the actual preparation or selection of items, not afterward as is the case with the Psychological/Social History Report.

It appears thus that efforts to build content validity into this instrument were unsystematic and flawed. As such, the developers have failed to demonstrate that the instrument's content is relevant to its proposed use of obtaining social history data. In comparison to established clinical interviews (Korchin, 1976; Sundberg, Tyler, & Taplin, 1973), it becomes more apparent that the Psychological/Social History Report lacks both depth and scope.

One of the primary *Standards* (1.1) states that "evidence of validity should be presented for the major types of inferences for which the use of a test is recommended" (p. 13). Although the manual has a disclaimer stating that the instrument is not recommended for any specific use, the program is promoted as suitable for gathering the background information necessary for clinical assessment and diagnosis (J. Redman, personal communication, July 12, 1991). Therefore, according to standard 1.1 (AERA et al., 1985), without evidence of content validity the use of the instrument for this type of data gathering is unsupported.

Many studies have shown the reliability of self-report interview data to be quite low (Erdman, Klein, & Greist, 1983; Klein, Greist, & Van Cura, 1975; Walsh, 1967; Yarrow, Campbell, & Burton, 1970). Sources of error encountered during the interview, including client bias and selective unwillingness to disclose information, make it difficult to obtain reliable data. The Psychological/Social History Report manual fails to address these issues, which may lead users to assume reliability erroneously where none has been shown.

Another issue regarding reliability concerns the use of alternate forms of an instrument. The *Standards* (4.6) state that if more than one method exists to gather the information, "the manual should report data, references, or a logically developed argument on the degree to which results from these methods are interchangeable" (p. 37). The Psychological/Social History Report allows respondents to record their answers on paper or directly into the computer. No data, references, or arguments appear regarding the interchangeability of these two recording techniques. Not addressing this issue implies parallelism between the two data-gathering methods. Claims of parallelism, as stated by the *Standards* (4.6), must be supported with data (AERA et al., 1985). This issue assumes added importance in light of the literature indicating significant differences in the amount and quality of data obtained from computer-administered interviews as opposed to paper-and-pencil forms (Angle, Johnsen, Grebenkemper, & Ellinwood, 1979; Carr, Ghosh, & Ancill, 1983).

As previously noted, this program has a feature allowing the user to delete topic areas for any given administration. He or she also can alter the order of presentation of topic areas. AERA/APA/NCME standard 3.17 states that if a short

form of a test is prepared by reducing the number of items or organizing portions of a test into a separate form, the developer must provide empirical data or a theoretical rationale estimating the reliability for each short form (1985, p. 29). Clearly a developer cannot anticipate the many alterations possible, so the issue becomes the responsibility of the user, who becomes a test developer when making modifications to the original program. However, because the developers have not provided reliability data to begin with, no comparisons can be made between forms.

Critique

The Psychological/Social History Report is a flexible assessment instrument with many potential uses. The ease with which it can be administered and the speed with which it produces a report make it a desirable software package. However, a detailed examination of how it meets or fails other relevant professional standards (AERA et al., 1985) will be useful in evaluating its overall utility.

Standards 5.2 and 5.4 clearly state what the appropriate contents of a test manual should be (AERA et al., 1985). The manual accompanying this instrument provides no information regarding the process of test construction or how the developers attempted to build in content validity. Content-related evidence of validity holds great importance for a social history interview. The lack of documentation included with this assessment makes it impossible for the prospective user to determine whether the instrument was constructed in an acceptably scientific manner.

Another of the primary standards states that test manuals should clearly delineate the recommended uses of an instrument and provide a summary of the evidence supporting these uses. This manual fails to provide any information regarding recommended uses. In fact, a disclaimer of liability appears in the appendices stating that no warranties are made with respect to the program's "fitness for any particular purpose." AERA/APA/NCME standard 5.2 also states that "where particular misuses of a test can be reasonably anticipated, the test manual should provide specific cautions against such misuses" (1985, p. 36). Several of the manual's deficiencies are addressed in this statement. The ability of the computer program to be customized by the user creates the strong potential for misuse. As previously noted, the test user becomes the test developer when modifications are made. The manual makes no mention of how this could create the potential for misuse, nor does it make clear the obligations incurred by the user who chooses to alter the instrument. Further, the manual fails to specify the age groups with which the instrument can be used. One of the test developers states uncategorically that the instrument should be used only for adults (G.D. Rainwater, personal communication, July 9, 1991), while the publishers recommend its use for adolescents as well (J. Redman, personal communication, July 12, 1991). Not addressing this formally in the manual creates the potential for significant misuse.

The *Guidelines for Computer-Based Tests and Interpretation* (American Psychological Association, 1986) state that the manual should report the rationale and evidence supporting any computer-based interpretations (21). The *Guidelines* (27)

also add that the extent to which interpretive statements are based on empirical research versus clinical opinion should be made clear. The manual fails to indicate how the program interprets certain answers as clinically significant. This ambiguity furthers the potential for misuse of the instrument.

Another area of concern arises due to fact that the software can inadvertently allow a respondent access to other client files. Once the program has finished administering the interview, the main menu appears. One of the options on this menu is "Quit," which if selected exits the program and accesses the clinician's DOS directory or software management system. Unless the examiner has taken security measures to restrict access to other programs or databases, an unsupervised client may intentionally or inadvertently gain access to unprotected data. Unfortunately, no mention about this possibility appears in the manual. This violates APA (1986) guideline 15, which states that procedures must be established to ensure confidentiality and privacy. Ultimately it is the user of course who is responsible for maintaining confidentiality, but it would appear that marketing a test that presents such a strong potential for misuse seems ill advised.

The *Guidelines* (10) state that automated assessment instruments should allow for the same degree of editorial control as traditional testing formats. The Psychological/Social History Report allows clients to back up to any question within a topic area and change their answers. This provides a great degree of editorial control over responses, but not to the same degree as the paper-and-pencil version, which permits a change in any answer at any point during the administration. However, this program performs better than similar automated social histories in this regard. For example, the Automated Child/Adolescent Social History (ACASH; Rohde, 1988) only allows respondents to back up one question to make corrections. One drawback to the Psychological/Social History Report, however, is the inability to suspend an interview and save the data if the need arises. Unlike the ACASH, the data cannot be stored in such a situation and the respondent must restart the whole process.

The manual presents clear directions, and it is relatively easy for respondents to learn the procedures from the tutorial. In terms of performance, though, this program does not appear to stand up well to similar products. For example, it makes relatively little use of its branching capabilities, which relates to another flaw in the instrument; namely, that inquiry into topics tends to be superficial and incomplete. Questions regarding major medical illnesses and childhood mental difficulties are not followed up if the respondent answers in the affirmative. If a client reports being raised in an institution, inquiries do not follow as to the necessity of these arrangements. (In fact, the program goes on to ask about family life with the parents.) In this regard, the interview is neither thorough or comprehensive. The questioning in the developmental history section is incomplete as compared to the GOLPH Psychosocial History (Giannetti, 1987), which inquires about type of delivery, birth weight, birth defects, and developmental milestones. None of these areas are addressed by the Psychological/Social History Report. As opposed to the ACASH, it does not possess the ability to flag inconsistent response patterns. For example, a client can endorse items indicating he or she was raised as an only child and then go on to answer questions about relationships with siblings.

By allowing for the interview to be customized, this instrument appears to have been based in part on the false assumption that (a) the appropriateness and utility of a structured interview depends on the individual user's needs and (b) by meeting these needs an instrument will possess the necessary validity for its intended uses. The basic interview here is incomplete and lacks thoroughness. Furthermore, it appears that few guidelines were followed to ensure the construction of a content-valid instrument. The feature allowing users to customize the program also creates the potential for serious misuse.

In a review by Mattei (1991), this instrument failed to meet a full 82% of the 17 primary AERA/APA/NCME standards on which it was evaluated. Naturally, not every standard is of equal importance and should not be given equal weight. For example, publishing a manual that does not specify the qualifications needed to administer an interview may not be as important or crucial as failing to develop an instrument in a sound scientific manner. In summary, the Psychological/Social History Report appears to be a seriously flawed instrument. With the absence of reliability or validity estimates, and with the violation of such a significant number of primary professional standards, it would seem that using this program for any specific purpose is inappropriate.

Empirical investigation regarding the use of case history interviews must assume greater importance. One factor that appears to have hampered such efforts is the widespread assumption that self-report measures are inherently invalid and unreliable. Although studies have tended to support this view, certain evidence does suggest that carefully designed interviews may be reliably and validly used to measure specific target behaviors (Linehan, 1977; Lucas, 1977). In addition, Haynes and Jensen (1979) have outlined steps for beginning to estimate the validity of interview-derived information.

The clinical interview must be fully recognized as an assessment instrument and, as such, held to the same standards of reliability and validity required of other assessment tools. Until these standards are accepted as applicable to the clinical interview, instruments of poor quality will continue to be distributed for widespread use. Psychologists should abandon the use of interviews, tests, and procedures that are recommended only by their availability, ease of use, and familiarity. In 1984 Killian, Holzman, Davis, and Gibbon proposed that psychologists had an ethical obligation to use instruments that conformed at least to the original APA standards published in 1966. These reviewers propose now that psychologists have an ethical obligation to use instruments constructed in a sound scientific manner and that conform to the current professional standards (AERA et al., 1985). Given that test users and developers increasingly are being held accountable by the courts for "defective test design" and "defective validation" procedures (Smith, 1991), clearly what once was an exclusively ethical issue has now become a legal one as well.

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