

Development of Knowledge Domains and an Instrument to Assess Probation Officers' Knowledge of Offenders with Intellectual Disabilities

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Abstract: The purpose of this study was to develop knowledge domains and an instrument to assess probation officers' knowledge levels of offenders with intellectual disabilities by utilizing a synthesis of subject matter analysis technique and a comprehensive review of literature. Results can be used to develop effective training for probation officers.

The prevalence rates of Intellectual Disability (ID) in the United States are estimated to be approximately 1% to 3% (Scott, Lewis, & McDermott, 2006). However, rates of incarcerated populations with IDs in the United States criminal justice systems are between 1% and 30%, with the majority of the estimates being between 4% and 10% (Scheyett, Vaughn, Taylor, & Parish, 2008). Even though offenders with IDs estimated rates comprise a small portion of offenders among incarcerated populations, the numbers far exceed the 1% to 3% prevalence of individuals with ID found in the general population. Although there is minimal research exploring IDs within the offender population, the question of how to deal with offenders with IDs has been the focus of research investigations in recent decades (Lindsay, 2002; Sondena, Rasmussen, & Nottestad, 2008).

In addition, due to the national inconsistencies in standardized training, the role of probation officers in monitoring and supervising offenders with IDs has also gained the interest of many researchers (Sondena, Rasmussen, & Nottestad, 2008). Leggett, Goodman, and Dinni (as cited in Sondena et al., 2008) examined the act of being interviewed by the probation officer, from the viewpoint of offenders with IDs. This perspective was investigated through an interview of 15 offenders with IDs. Having the support and presence of an appropriate adult during the interview was identified as an important factor. In 28 interviews with court representatives, Cant and Standen (as cited in Sondena et al., 2008) studied how professionals perceive offenders with IDs. According to the results of the study, many professionals are fearful that an individual's IDs would go undiscovered unless that person was arrested. Because of professionals' identified concerns, improvements in the probation officers training and ability to properly assess these individuals were suggested.

As reflected in previous literature, there is a disproportionate amount of individuals with IDs on community supervision (Lindsay, 2002; Scheyett et al., 2008). Further, studies have highlighted the critical issues facing offenders with ID, the significant role probation officers play in supervising these offenders, and the national inconsistencies in probation officers' standardized training (Brodsky & Bennett, 2005; Sondena et al., 2008). However, a review of literature revealed no instruments or studies that assessed probation officers' understanding or knowledge of offenders with IDs. Due to the lack of clarity about the extent of adequate training probation officers receive on offenders with IDs, their level of knowledge and ability to identify subtle signs of IDs in offenders establishes the need for substantial further research and changes.

Purpose of the Study

The purpose of this study was to develop knowledge domains and an instrument to assess probation officers' knowledge levels of offenders with IDs by utilizing a synthesis of subject matter analysis technique and a comprehensive review of literature. The results of the study can be used to add information to the body of literature to support a need to incorporate effective training material on offenders with IDs within training of probation officers. The following research question was addressed: How do you develop knowledge domains and an instrument that assesses probation officers' knowledge level of offenders with IDs?

Theoretical Framework

Establishing Knowledge Domains

Subject matter analysis (SMA) is a technique for establishing and representing knowledge domains and skill. There are two components of subject matter analysis: the quest for agreement on the details of the knowledge of the master performer, referred to as the subject matter expert (SME), and the representation of it so that elements, structures and relationships are clearly depicted. SMA is concerned with what ought to be happening, with what performers must know to do the job optimally (Rossett, 1987). SMA is the dominant front end technique when one is charged with preparing new courses or modules for new products, technologies, and systems. Although SMA is one of the primary sources for training directions and developing knowledge domains, the phrase subject matter analysis is often unfamiliar and purposes are unclear. However, a recent body of literature supports the use of it.

Education and SMA. In recent literature, subject-matter knowledge of teachers has been approached more qualitatively. A greater emphasis has been placed on understanding of facts, concepts, principles, and the connection and organization of them. Even and Tirosh (1995) further averred that "effective" instructional behaviors tended to be connected with the level of subject-matter knowledge. In current studies, authors have found similar results in an examination of teachers' subject -matter knowledge development and its impact on teaching practices (e.g., Kind, 2009; Rollnick, Bennett, Rhemtula, Dharsey, & Ndlovu, 2008). Therefore, the use of SME knowledge in different aspects of education offers insight into real world contexts, a factor critical for learners to engage in the learning process.

Rehabilitation Counseling and SMA. Rubin, McMahon, Chan, and Kamnetz (1998) investigated priorities for rehabilitation credentialing and certification research in an era of health-care and disability policy reform. The experts on the panel were individuals in leadership positions in a rehabilitation counseling credentialing agency. Based on results of the study, high-priority areas highlighted were credentialing, role differentiation, outcome research, and practice trends.

A Delphi study was conducted by Currier, Chan, Berven, Habeck, and Taylor (2001) to gain expert opinions on how to define disability management practice functions at each level. Two groups of experts in disability management participated, a project advisory committee and an expert panel. Utilizing input from the advisory committee, a questionnaire was developed in phase I of the study. Results of the study proposed that many functions and knowledge domains were important to disability management practice.

The third study was conducted in the area of clinical supervision by Thielsen and Leahy (2001). The study's purpose was to identify the supervisory knowledge and skill areas needed to conduct effective field-based clinical supervision of rehabilitation counselors. The instrument in the study was developed by using a review of the literature and the Delphi method (Thielsen & Leahy, 2001). Eligible professionals included (a) experts chosen for their active contribution to

the rehabilitation counseling literature in the area of clinical supervision for at least 15 years, (b) members of the CRCC Supervision Committee, and (c) practitioners with extensive experience in field-based clinical supervision of novice rehabilitation counselors. Responses of the study were analyzed by using more than 400 content analysis responses. The results indicated that Certified Rehabilitation Counselors perceive that a substantial amount of knowledge and skills are necessary for effective field-based supervision of rehabilitation counselors (Thielsen & Leahy, 2001). According to the authors, the Delphi method has advanced the body of knowledge of the rehabilitation counseling practice.

Special Needs Assessments

Special needs assessments are significant to success in the nationwide goal of overall improved individual achievement. Although there are no results of previous literature that focused on special needs assessments for probation officers in the criminal justice field, other professional literature such as special education and health care management have several instances in which their professions have used special needs assessments in order to help develop educators and administrators skills, improve classroom effectiveness, or for professional development.

Special education and special needs assessments. Praxis series provides online basic information about various areas in special education that is significant to all special education teachers. This information is covered in Education of Exceptional Students core content knowledge examinations (ETS, 2008). Topics covered on the exams are (a) history of the profession, (b) characteristics of individuals with disabilities or special needs, and (c) effective service delivery. Further, the Praxis series provides sample multiple choice and scenario questions to assist educators increase their level of proficiency in their profession (ETS, 2008).

Health social care and special needs assessment. McKenzie, Murray, Metheson, Higgon, and Sinclair (1999) developed a series of questionnaires to assess staff level of knowledge and understanding of learning disabilities. Overall results identified a low level of knowledge from staff on the characteristics of learning disability. Further, results suggested that this area needs to be addressed in more detail to ensure that health and social care professionals have knowledge and skill base which is up to date (McKenzie, McIntyre, Metheson & Murray, 1999).

Training Needs Assessments

Kvarfordt, Purcell, and Shannon (2005) investigated juvenile justice staff training needs. A statewide survey of staff was conducted using a stratified cluster sampling technique. The purpose of the study was to assess juvenile justice staff levels of knowledge on youth with learning disabilities in the juvenile justice system. Based on results of the study, 96% of staff believed it was important that staff have knowledge about learning disabilities. Also, 81% of staff agreed that appropriate use of communication strategies will help increase success for youth with learning disabilities in behavior programs. However, fewer than half of the staff reported that they had not received any training about youth who have learning disabilities. Due to the over-representation of youth with learning disabilities and the inadequate training of the staff that directly work with these youth daily, staff training events was strongly suggested.

In more recent literature, training needs for substance abuse treatment and assessment among rehabilitation counselors have been investigated. Ong, Lee, Cha, and Arokiasamy (2008) reviewed rehabilitation counselors training needs and current practices in substance abuse treatment and assessment. Results yielded a statistically significant positive correlation between adequacy of graduate training programs perceived as poor and practitioners belief that they were

not competent in service provisions with clients. Change in training programs curriculum content and opportunities for continuing education were recommended.

Therefore, building on the fundamental basis of theoretical frameworks and previous researchers' questionnaire(s) and scoring criterion, knowledge domains were established and an instrument to assess knowledge of probation officers on offenders with IDs was developed.

Methodology

Sampling

This non-probability sample consisted of five subject matter experts who were contacted and agreed to participate in the study. The participants consisted of three white males and two white females. Each of the subject matter experts had over 20 years of professional experience in the field of rehabilitation, IDs, or criminal justice. Two out of five subject matter experts had multiple years of experience in both the field of IDs and criminal justice. Further, three out of five experts had at least 10 peer-reviewed publications and two subject matter experts were licensed in psychology.

Measurement

In order to develop an instrument to assess knowledge that probation officers have about offenders with IDs, an establishment of knowledge domains through face-to-face interviews with SMEs were completed. SMEs were contacted via email, invited to be participants in the study, and provided an informed consent. Subsequent to agreeing to participate, the five subject matter experts were contacted via email to set up a time and comfortable setting to conduct individual face to face interviews (if possible) or via email depending on SMEs location. The interviews took place in the SMEs office or an alternate location recommended by the SME. The interview protocol questions were used as a guideline. In addition to the interview protocol question content, the target population's reading levels, use of professional jargon on instrument, and test-taking temperament were discussed during the interview.

Procedure

SME analysis. SME responses to interview protocol questions were recorded verbatim. The transcriptions were analyzed by using content analysis (Krippendorff, 2004). In the initial stage of analysis I obtained general concepts from each individual SME interview. These concepts were then put together to develop categories from each SME interview. The next stage consisted of analyzing categories across the SME interviews. This systematic analysis of text allowed for terms and the context of how the term should be utilized to be discovered during interviews. After the initial draft of categories and themes was developed, appropriateness of content analysis was approved and validated by three of the five subject matter experts.

Comprehensive review of literature. In addition to the subject matter analysis technique, an initial review of literature on knowledge levels of criminal justice staff on offenders ID in the fields of criminal justice, and rehabilitation counseling was conducted. The search yielded minimal to no results of previous literature that focused on assessing the knowledge levels of probation officers on offenders with IDs. Due to the gap in literature on this subject in the above stated disciplines, consultation and direction was sought from SMEs who had specialized knowledge in criminal justice field and IDs. Based on suggestions provided by SMEs, a supplemental review of literature in alternative fields that have conducted research on their staff levels of knowledge of patients or clients with IDs was performed through the following database search engines: (a) EBSCO host; (b) PSYCH info; (c) Education Psychology; (d) Health Care Management; (e) Special Education; (f) Praxis, standardized examinations for special educators; and (g) Psychology. The outcomes of the literature review suggested that

effective assessment of staff knowledge levels of IDs should include ability to (a) identify a clinical definition of ID, (b) recognize signs and symptoms of IDs, (c) respond appropriately to outburst and challenging behaviors, (d) identify prevalence rates of intellectual, and (e) exemplify practical knowledge of effective interactions. The assessment of probation officers' knowledge levels of IDs was developed in part with these knowledge domains in consideration.

Instrument development. According to DeVillis (2003) instrument developers should be clear about what is being measured and write items that reflect the instrument's purpose. Additional guidelines identified when developing items are (a) avoid unnecessary wordiness, (b) aim for items to be written at a reading level between fifth and seventh grade, (c) stay away from items that convey two or more ideas, and (d) avoid the use of multiple negatives (DeVillis, 2003). These guidelines were also taken into consideration as the first draft of the instrument items was written.

After initial draft of items was developed, appropriate content of items for the instrument was validated by subject matter experts. The SMEs were asked their opinions on whether items on instrument should be retained, modified, or deleted. An item was deleted from the instrument if a majority of the experts recommended deletion. As a result of SME opinions, four questions were deleted and five questions were modified. A revised copy of the *Probation Officer Knowledge of Intellectual Disabilities Assessment* included the suggested changes.

The *Probation Officer Knowledge of Intellectual Disabilities Assessment* is a 20-item multiple-choice instrument with seven demographic questions. The majority of the items are intended to reflect probation officers' knowledge of offenders with IDs. Item format is a mixture: some are queries about facts related to IDs, and other items are scenario-based and require participants to identify the most appropriate response to a situation based on their knowledge and experience. Additional items derived from categories that emerged from SME interviews' were also included in the assessment. These items were designed to assess officers' attitudes on interventions with offenders and views on the criminal justice organizational structure. Although there are varying levels of difficulty in items, the 6th grade average reading level of instrument was determined by subject matter experts' recommendations during the interview process and supported by a review of scale development literature.

Data Analysis

Based on Rossett's (1987) subject matter analysis technique concept, structured protocol questions were developed to use as a guide for information to gather from SME interviews. This process is designed to help develop bodies of knowledge content. During interviews and discussions with SMEs, I recorded responses verbatim from each individual SME. After the completion of individual interviews, content analysis was used to make comparisons of each SME text were made and similar responses were grouped. The emerged content themes were recorded. To ensure accuracy of coding, the proposed themes and categories that were identified were sent to SMEs for review and agreement. Once SMEs concurred with the identified content, the themes and categories coding was applied to the data. In addition to the content analysis from SME interviews, a synthesis of results from SME interviews' content analysis and knowledge domains established from a review of health care, educational and psychiatric field literature on IDs was used to develop and validate items for instrument.

Results

As a result of SME interviews, four central categories emerged (a) identifying behavioral characteristics, (b) appropriate responses to behavioral characteristics, (c) attitudes of probation officers, and (d) organizational structure.

Supplemental themes that emerged from SME's responses were that the developed instrument should (a) be free of jargon, (b) be written in simple language not above 6th grade reading level, (c) include 10-20 questions with scenarios, and (d) take officers no more than 20 minutes to complete.

In addition to the content analysis from SME interviews, a comprehensive review of literature was conducted. The outcomes of the literature review suggested that effective assessment of staff knowledge levels of IDs should include: (a) identification of a clinical definition of ID, (b) recognition of signs and symptoms of ID, (c) appropriate response to outburst and challenging behaviors, (d) identification of prevalence rates IDs, and (e) exemplify practical knowledge of effective interactions.

From the synthesis of these outcomes, the following three subsequent categories emerged on the instrument: (a) knowledge domains, (b) organizational structure, and (c) attitudes of probation officers.

Conclusion and Future Research Implications

In an attempt to evaluate the research question addressed in this study, "How do you develop knowledge domains and an instrument that assesses probation officers' knowledge level of offenders with IDs?" The following conclusions were noted.

The successful development of three categories established content validity of the newly developed instrument. This was accomplished by using a group of subject matter experts and a review of literature. The synthesis of results from SME interviews' content analysis and knowledge domains established from literature review were used to construct items. The three subsequent categories emerged on the instrument.

Knowledge Domains

Based on a consensus from subject matter experts, knowledge of a single domain can be assessed in 10 to 20 items. After review of items by SMEs, subsequent deletions and revisions, this category consisted of 13 multiple choice items. The majority of content for items was developed from literature review of the following areas (a) identification of a clinical definition of ID, (b) recognition of signs and symptoms of IDs, (c) identification of prevalence rates of IDs and, (d) exemplifying practical knowledge of effective interactions. In addition, content analysis from SMEs was used to confirm information gathered from literature review.

Organizational Structure

During content analysis interviews, SMEs unanimously reported that it was important to discover what or who a probation officer believes significantly controls effective interactions with offenders who have an ID. Therefore, under this category, three items were added that focused on probation officers' general perception of control. Due to the gap in literature in the criminal justice field in this area, SME's recommendations of content were used to develop the items under this category. Because there was no literature to support an accurate response to items, only frequencies of probation officers' response were collected.

Attitudes of Probation Officers

Based on SMEs interviews content analysis results, it is important to determine probation officer's willingness to change. This level of motivation is often based on their attitude about (a) their knowledge level of offenders with IDs, (b) training in IDs, and (c) effective interactions with offenders with IDs. According to DeVillis (2003) likert scaling is used most often when measuring opinions, beliefs and attitudes. In order to avoid response bias, many scale developers decide to construct items that are written "both positively and negatively within the same scale"

(DeVillis, 2003, p. 69). With these guidelines in mind, items in this category were both positively and negatively worded. Frequencies of probation officers' response were recorded.

The development of this instrument provides professionals in the field a starting point for conversation about specific staff training needs regarding offenders with IDs. Prior to this research, no studies or assessments were identified that offered any support for training needs assessments on probation officers. Supervisors and supervisees in the criminal justice system can use content domains developed from subject matter experts' interviews to evaluate specific concepts and effective interactive approaches.

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