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HIV Case Manager Preparedness for Practice in Ryan White CARE Act Funded Settings

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While current research on the factors affecting the HIV epidemic within the general population has considered the role of HIV case managers, much remains to be known about case management effectiveness and how it might be enhanced. This article presents the data from a statewide survey of case management professionals in Florida. The study focused on case managers' preparation for practice and barriers to successful practice. The study results reflect a very broad educational preparation in multiple disciplines with highly varied means of case manager training and orientation at entry to practice. Further, the results highlighted the existence of multiple barriers that challenge the ability of case managers to cope with the demands of case management practice in sites serving people living with HIV/AIDS who are socially and economically challenged. The article concludes with recommendations for

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changes in the system that would enhance the preparation of case management professionals for entry to practice.

KEYWORDS HIV case management, case manager, preparation for practice, Ryan White Care Act

INTRODUCTION

The social care of people living with HIV/AIDS (PLHA) is a complex undertaking that integrates a variety of clinical and psychosocial interventions. While physiologically based therapies such as pharmacologic treatments offer a fairly straightforward method by which to study treatment effect, many other HIV care-based interventions present a substantial problem when considering the available means with which they can be evaluated. Establishing the effectiveness of HIV case management interventions is particularly challenging in this regard. Case management interventions by their very nature tend to be multifaceted in their approach to clinical problems. This tends to complicate issues of measurement and thus requires that only specific elements of a case management intervention be directly examined in a study. Since case management seeks to address many factors to arrive at a beneficial clinical outcome, the very nature of the enterprise is complex. The common denominator in case management interventions is the case manager. Case managers, as the professionals tasked with managing social and medical aspects of the treatment regimen, are central agents in the quest to improve the outcomes of HIV care. Little is known, however, regarding the professional attributes of case managers.

CASE MANAGEMENT IN HIV/AIDS

Although case management services are offered in many care settings, the most widespread and well-structured service package in the United States is offered under the Ryan White Comprehensive AIDS Resources Emergency (CARE) Act (Brooks, 2010). The primary goal of the Ryan White CARE Act is to make available high quality comprehensive HIV care services for People Living with HIV/AIDS (PLHA). Under the Act, requirements exist for the provision of comprehensive case management services. One of the stated goals of the program is to coordinate program services with other health care delivery systems, which is the aspect of the program that is directly addressed by the case management component of care. While the Act has evolved over the years and is well into its second decade, it continues to fund services for the medically indigent. Ryan White funded legislation represented an important

development in the care of people living with HIV/AIDS; in essence, it revolutionized the way that integrated services are provided in the context of HIV/AIDS (Rowan & Honeycutt, 2010).

The CARE Act provides a comprehensive definition of case management services. Under the Act, case management services are "a range of client-centered services that link the client with health care, psychosocial care, and other services to insure timely access to medically appropriate levels of health and support services continuity of care, ongoing assessment of the client's and other family members' needs and personal support systems, and inpatient case management services that prevent unnecessary hospitalization or that expedite discharge, as medically appropriate, from inpatient facilities" (U.S. Department of Health and Human Services, 1990).

Owing to their nature, case management services vary somewhat across practice and geographic settings. Thus, it is essential to define the role of case management in the HIV care continuum. Emlet and Gusz (1998) performed an early study at a time when the epidemic was rapidly changing from one that affected primarily gay men to one that afflicted higher numbers of women, non-white minorities, and intravenous drug users. Their 5-year longitudinal study examined individuals enrolled in an HIV/AIDS case management program. The hallmark of the study was it's ability to document changes in the epidemic and subsequent changes in service requirements on the part of PLHA. For instance, they documented increasing numbers of women and injection drug users enrolled in the case management program. Consequently, changes to the service requirements of enrollees occurred, particularly to the extent that their requirements for support services increased over time, thus validating the expanding requirement for service linkages in case management programs. Grube and Chernesky (2001) examined the role of case managers and found that these professionals were forced into what amounted to a crisis mode, involving high levels of demand and thus a need to ration and allocate time carefully. Subsequently, an inappropriately large proportion of time was dedicated to direct client interaction, followed by administrative tasks associated with client care. This was considered problematic because case managers' overwhelming caseloads often left little time for administrative tasks such as service coordination, which are essential to maintaining appropriate levels of client service. The studies by Emlet and Guz (1998) and Grube and Cheresky (2001) highlighted the pressure placed on case managers by high service demands and concerns about the unpredictable, dynamic nature of characteristic of the epidemic. While the literature addressing HIV case manager performance attributes is limited, these studies represent the most prominent of the limited studies that address the topic.

Case management in the context of HIV involves a delicate balance between direct client contact and administrative duties that facilitate the provision of needed services to clients of a particular organization. Case

management services are central to the coordination of social and medical care for PLHA, and act as the means by which care is distributed (Edwards, 2013). A key construct that has been explored in several recent studies is the idea that early linkage with care is essential in ensuring that PLHA are retained in care (Ulett et al., 2009; Hightow-Weidman, Smith, Valera, Matthews, & Lyons, 2011). Given the current focus of case management services, their provision is supported by the notion that people must be linked with care in an expeditious manner in order to retain them over the long term (Giordano et al., 2007). Research has illustrated that people who are currently in social support groups and who present requesting assistance with basic needs are more likely to effectively engage in case management services (Johnson, Polansky, Matosky, & Teti, 2010). Additionally, recent studies have shown an association between the provision of case management services and retention in care and more beneficial clinical outcomes (Ko et al., 2012; Wohl et al., 2011). These studies, however, fail to delineate the precise components of the case management model associated with these outcomes. They do illustrate the relationship between social support, basic needs and the beneficial outcomes associated with case management from the perspective of service provision.

Since case managers execute service linkages that often involve ancillary services, it is important to consider the extent to which these services are beneficial to client's treatment related outcomes. Ashman, Conviser, and Pounds (2002) performed a study of ancillary and primary care services in a Ryan White CARE Act–funded setting. The results indicated a positive association between the delivery of ancillary services and the receipt of medical care from a safety net provider. This effect was documented after controlling for multiple demographic and disease related factors. This was an important study because it was the first to demonstrate a positive association between the range of ancillary services and the receipt of ongoing medical services within the safety net offered under the Ryan White CARE Act. Messerri, Abramson, Aidala, Lee, and Lee (2002) performed a similar study in New York City. They found case management and ancillary service provisions were associated positively with engagement in ongoing medical care. A study by Chan, Absher, and Sabatier (2002) also revealed a positive association between ancillary services and primary care. However, in contrast to the findings of the study by Ashman et al. (2002), evidence was also provided of a positive effect on retention in care when clients received higher levels of ancillary services. In smaller-scale examinations, Concover and Whetten-Goldstein (2002) and Crook, Browne, Roberts, and Gafni (2005) showed positive associations between ancillary services and primary care attendance, particularly with regard to housing and legal services.

Studies That Address the Outcomes of Case Management Services

The linkage of clients who are often naïve concerning medical care with vital services is a central theme in case management. Katz et al. (2000) used a national probability sample of clients to examine need and unmet need for a variety of ancillary services, illustrating that clients' needs are often unmet. Katz et al. (2001) demonstrated that case management services are associated with diminished levels of such needs. Katz et al. (2000, 2001) identified that the primary unmet needs concerned income assistance, home health care and emotional counseling. To address unmet needs and retain clients in care, it is essential that services be tailored in such a way that provides needed services in a timely manner (Sherer et al., 2002). Lehrman, Gentry, Yurchak, and Freedman (2001) performed a similar study as done by Katz (2000); however, they quantified the needs of clients in New York State. The results by Lehrman et al. were important as they identified that out of all the client needs, 79.3% were for services. Of these service-related needs, 72% were arranged for clients with a no show rate of 12.9%. This demonstrates the many challenges faced by case managers, even when they attempt to make appropriate referrals.

Lo, MacGovern, and Bradford (2002) studied clinical characteristics, service needs, and utilization patterns among clients in a community-based HIV care program. They found a positive correlation between attendance at regularly scheduled primary care visits and the use of ancillary services, of which primary care was the most common. Interestingly, of the clients comprising the study sample, those supported by the Ryan White CARE Act had the highest rates of service utilization. Care funded under the Ryan White CARE Act mandates the offering of case management services, and thus represents the most common integrated system of care for people living with HIV/AIDS. Valverde et al. (2004) compared the characteristics of clients who received care funded by the Ryan White CARE Act versus those who did not. As predicted, clients receiving this funded care were more often medically uninsured and from underrepresented groups. Additionally, clients funded under the act were more likely to access ancillary services. These services included transportation, adherence training, training regarding disease management, and risk-reduction training.

In a more recent study, Gardner et al. (2005) identified that the provision of case management services increased the likelihood of clients regularly visiting an HIV care provider. This increases the likelihood of clients entering a setting in which antiretroviral therapy is available, which in turn means that a beneficial treatment outcome is more likely. In a closely related study, Shelton, Golin, Smith, Eng, and Kaplan (2006) analyzed the roles of HIV case managers, and confirmed the key role of linking clients to care. These studies confirm the vital role that case managers play in linking clients to

care and needed services. However, they fail to identify the individual-, professional-, and practice-related components of case manager practice that directly account for beneficial HIV treatment outcomes.

Gaps in the Current Understanding of the Case Management Effectiveness

There is a limited body of research that directly addresses case manager professional characteristics, competencies, and job performance in HIV/AIDS care settings. Arguably, one way to increase case management effectiveness is to enhance the current understanding of a case manager's performance and professional attributes. To this end, research that addresses case manager characteristics would be useful in broadening our understanding of case manager practice. Yet, to date, there have been few such studies of case managers. Who are they? What is their training and educational preparation? What is their experience of case management and barriers to effective case management? Answers to these questions would enable a broader understanding of the likely contributions that they make to clinical outcomes. The purpose of this study was to provide the results of a study of case management professionals in order to provide a comprehensive composite of their preparation for practice and perceived barriers to practice. This will be accomplished through addressing the following specific aims:

1. To determine the professional and educational preparation of case management professionals in federally funded sites across Florida.
2. To determine perceived adequacy of preparation for entry to practice.
3. To determine barriers to case manager practice.

METHODS

The study used a descriptive mixed methods approach to quantify the characteristics of case managers at Ryan White CARE Act funded sites across the State of Florida. The study was based on a survey that contained both closed- and open-ended items, which was administered online. The initial section of the survey elicited information regarding case manager demographic, educational, and professional characteristics. The second section of the survey comprised open-ended items that elicited participants' reflections on their initial professional socialization as case managers and their ongoing struggles with barriers associated with case manager practice. This approach was designed to provide a basis for comparisons between individual case manager characteristics related to their preparation for practice and the challenges that they had faced as their careers progressed. The

survey was initially screened for face validity by three experts in HIV-related health services research, which lead to substantial changes to the instrument. An additional screening by nine different experts followed this and led to subtle changes to survey questions to increase their clarity. The survey was then loaded to a secure website that allowed participants to record their responses.

Prior to initiation of the study, Human Subjects Committee approval was gained at the university where the study was conducted. The sampling plan for the study was simple including all of the Ryan White CARE Act sites in the State of Florida. Each was contacted with a statement that asked for a standard e-mail message to be forwarded to all case management personnel employed at the agency. This e-mail contained a Human Subjects Committee approved script that introduced the study and offered a clickable link that led the prospective participant to the online data collection instrument. Initially, participants viewed the consent statement for the study, in which they were apprised of their rights as participants. Participants who then chose to participate, selected the appropriate menu item, and continued with the research instrument. In total, 157 participants viewed the online consent statement, with 144 of these having chosen to view to the instrument. In total 138 participants began the instrument and 122 completed at least 75% of the items. The overall completion rate for the study, when considering the case managers who viewed the consent statement was 77.7%.

The demographic and educational data was analyzed through the use of common descriptive statistics. The open-ended items were subjected to content analysis. Each item was coded according to the themes present in the data by 2 coders working independently. Following their coding, the codes were compared and reconciled. Initially, there was an 86.3% rate of agreement between the codes assigned by the two individuals assigning them. Of the remaining codes, the primary difference was not manifested in the grouping of data, but rather in the nature of the description selected. The labels assigned to these codes were reconciled resulting in a 94.9% rate of agreement. The remaining areas of disagreement were reconciled with the assistance of the principle investigator in collaboration with the coding personnel.

RESULTS

Table 1 reflects demographic factors that describe the 122 case managers who provided instruments that were at least 75% complete. The results reflect a relative balance of case managers according to gender. Further, the case managers who responded tended to have practiced extensively in case management settings with significant although lesser experiences in HIV care specific sites. From an educational perspective, case managers represented

TABLE 1 Participant Demographics ($N = 122$)

Variable	Frequency	Mean (*SD*)
Gender		
Male	58 (47.5%)	
Female	61 (50.0%)	
Transgender	3 (2.5%)	
Age		41.6 years (9.7)
Experience Level		
As a health or social care worker		11.4 years (6.7)
As a case manager		7.2 years (3.4)
As a case manager in HIV specificsettings.		4.4 years (2.7)
Highest Educational Preparation		
High School Diploma	12 (9.8%)	
Vocational Diploma	7 (5.7%)	
Associate degree	8 (6.6%)	
Bachelors Degree	77 (63.1%)	
Masters Degree	17 (13.9%)	
Doctoral Degree	1 (0.8%)	
Field of Study/Professional Preparation		
Education—Bachelors Degree	9 (7.4%)	
Education—Masters Degree	1 (0.8%)	
Engineering—Bachelors Degree	2 (1.6%)	
Health Science—Bachelors Degree	4 (3.2%)	
Nursing—LPN Certificate	7 (5.7%)	
Nursing—Associates Degree—RN	8 (6.6%)	
Nursing—Bachelors Degree—RN	25 (20.5%)	
Nursing—Masters Degree—RN	7 (5.7%)	
Psychology—Bachelors Degree	11 (9.0%)	
Psychology—Masters Degree	3 (2.5%)	
Social Work—Bachelors Degree	21 (17.2%)	
Social Work—Masters Degree	6 (4.9%)	
Sociology—Bachelors Degree	5 (4.1%)	

a highly diverse group with respect to their educational preparation, ranging from high school to doctoral levels of education. While the diversity of level of education was broad, the range of disciplines reported by case managers with respect to their educational preparation was impressive. The majority were prepared for practice in traditional disciplines such as social work or nursing; however, a significant proportion were prepared initially in a vast array of other disciplines, some of which were related to case management, (e.g., education or psychology) and some of which were not (e.g., engineering).

Table 2 reports the means of preparation for entry into practice in HIV case management. These results reflect a universal period of on-the-job training for case management positions. On-the-job forms of training, however, are augmented by a variety of more formal training and educational programs provided by individual agencies, attending professional conferences, or government agencies. It is notable that the results reflect that many case managers rely on informal study or life experiences as a significant source

TABLE 2 Means of Preparation in Initial HIV Case Management Position

Variable	Frequency
On the job or experiential training	122 (100%)
Formal classroom training within one's agency	52 (42.6%)
Training courses provided by state agencies	31 (25.4%)
Training courses provided by federal agencies	19 (15.6%)
Coursework during graduate education	11 (9.1%)
Coursework during undergraduate education	10 (8.2%)
Reading outside of the work environment	9 (7.4%)
Professional conferences	7 (5.7%)
Personal experiences as a client of the same or similar agencies	2 (1.6%)

TABLE 3 Reported Barriers to Effective Case Management During the First Year of Practice

Variable	Frequency
Lack of experience with program related administrative processes	119 (97.5%)
Lack of knowledge of means of accessing programs external to the agency on behalf of clients	107 (87.7%)
Financial constraints within the agency	101 (82.8%)
Financial constraints at the state and federal levels	92 (75.4%)
Lack of experience with HIV specific programs at the state and federal level	77 (63.1%)
Client non-adherence regarding the plan of care	62 (50.1%)
Lack of knowledge regarding the medical aspects of HIV management	37 (30.3%)
Difficulty integrating into the agency due to workplace dynamics	26 (21.3%)
Resistance within the agency regarding new ideas and approaches to client management	17 (13.9%)
Fear regarding physical contact with HIV infected individuals	16 (13.1%)
Cultural barriers and lack of experience within multicultural environments	12 (9.8%)
Lack of Spanish language proficiency	9 (7.4%)
Lack of French/French Creole language proficiency	2 (1.6%)

of preparation for practice. Less than 10% of respondents reported that their formal collegiate education provided coursework of specific utility to their entrance to case manager practice. Perhaps the most telling result is the fact that 107 (87.7%) participants reported that their preparation for entry into practice was inadequate in facilitating their performance of case manager duties on entry to practice.

This lack of preparation manifests itself in the barriers to practice reported by case managers. Table 3 reports the barriers to practice reported by the participants. The results reflect a broad pattern of inexperience and lack of knowledge related to core case management tasks. Broadly, the most frequently reported factors relate to the case manager's role in navigating the HIV case system and accessing resources for their clientele. Financial limitations were reported as barriers by the majority of participants. A variety of

other factors related to cultural competency (e.g., language or cultural proficiency) and client specific factors such as lack of adherence were reported by a substantial proportion of participants. Fear of physical contact with HIV-infected individuals was reported by a notable proportion of the participants, further reflecting their lack of knowledge regarding contagion related factors and the possible influence of stigma towards PLHA in the sample.

Case managers provided considerations for solutions to these barriers. These are presented in Table 4, and reflect actions directly related to the barriers reported in Table 3. Interestingly, however, the participants' responses reflected the effect of practice barriers of an administrative nature, such as the availability of electronic medical record, flexibility of scheduling, and the availability of adequate office spaces and administrative supplies. Perhaps most noteworthy, was the lack of referral resources for their clientele with substance abuse disorders.

Participants were asked to elaborate on the solutions they proposed by providing means to improve initial case manager training. Table 5 reports the results. Interestingly, nearly all participants believed that greater incorporation of case management specific educational component within their collegiate education would have benefited their initial transition into case management.

Table 6 reports the frequency of stressors reported by the participants. All respondents cited excessive caseload as a primary source of stress. Excessive caseload was closely related to the other reported sources of stress that related directly to the combination of their inability to address client needs, coupled with client related factors such as non-adherence. A variety of administrative factors were reported as well. A large proportion of case managers reported difficulties associated with inter-professional communication with members of the clinical care staff and additional difficulties associated

TABLE 4 Considerations for Solutions to Barriers to Effective Case Management

Variable	Frequency
Decreased case load per case manager	121 (99.2%)
Greater availability of resources for clients	107 (87.8%)
Wider availability of referral for counseling and substance abuse related services	99 (81.1%)
Availability of transportation services for clients	88 (72.1%)
Greater availability of administrative support personnel	87 (71.3%)
Improved support from administration for case management activities	73 (59.8%)
Maintenance of more complete client records (written and electronic)	69 (56.6%)
Availability of Electronic Health Record (in cases where agency lacks these)	56 (45.9%)
Greater patient scheduling autonomy for case managers	47 (38.5%)
Improved office spaces	44 (36.1%)
Greater availability of administrative supplies	21 (17.2%)

TABLE 5 Proposed Means to Improve Case Manager Training

Variable	Frequency
Greater inclusion of case management specific course work and content as a component of the undergraduate collegiate preparation.	107 (87.8%)
Wider availability of formal HIV case management training in the workplace.	105 (86.1%)
Longer period of entry-level training prior to assuming a full caseload.	97 (79.5%)
Improved pay and working conditions in order to maintain experienced case managers in the workplace.	88 (72.1%)
Inclusion in training programs of issues related to the medical aspects of case management.	66 (54.1%)
Improved availability of instructional or reference materials in the workplace.	45 (36.9%)
Wider availability of case management related training at the graduate level.	32 (26.2%)

TABLE 6 Reported Sources of Job Stress

Variable	Frequency
Excessive case load	122 (100%)
Inability to serve client needs	119 (97.5%)
Difficulty addressing counterproductive behaviors in clients including substance abuse	106 (86.9%)
Difficulty coping with client loss due to death	98 (77.9%)
Difficulty interacting with administrative staff	78 (63.9%)
Lack of support on the part of administrative leadership	66 (54.1%)
Difficulty integrating service requests from individual healthcare providers (in excess of the case management system in the facility)	33 (27%)
Inability to fully meet medical needs of clientele	29 (23.8%)
Inability to gain external referrals for clients	22 (18%)
Difficulty communicating with clinical staff	16 (13.1%)

with the administrative team in the facility where they practiced. Notably, the inevitability of client deaths contributed heavily to case manager stress. Psychosocial issues such as conflict with clients, difficulties with one's home life and a loss of compassion were also reported by participants.

DISCUSSION

The discussion of the results was accomplished by addressing each of the specific aims of the study.

The Professional and Educational Preparation of Case Management Professionals in Ryan White CARE Act–Funded Sites.

With regard to the educational preparation of the participants, a broad range of professions was represented by practicing case managers across Florida.

Individuals with nursing and social work degrees comprised the majority of the sample. While this result is not surprising, other professions were also represented within the sample, ranging from education majors to highly technical specialties such as engineering. A concise reflection of the professional profiles of case managers in Ryan White CARE Act–funded programs has not been reported in the other studies, and thus, this element of the study is unique. Given the multidisciplinary nature of case management, it is not surprising that so many forms of educational preparation are represented among case managers with most being prepared at the Bachelor degree level.

The results regarding job preparation were concerning. The majority of case managers reported on-the-job training as the primary form of preparation for their work in case management. While participants also reported a variety of other training modalities, such as orientation courses provided at the local and state level, it accounted for less than half of the sample. There was no systematic, designed, and unified approach to case manager training for clinical practice. When one considers the very broad range of disciplines from which case managers arise, there is a clear need for a more systematic and uniform approach to training, so that learners acquire a set of unified case management–specific competencies.

The broad range of forms of preparation, as well, raises questions regarding overall suitability for the highly demanding area of practice represented by the care of PLHA. For instance, nurses possess well-developed knowledge about the treatment of HIV and other diseases but often lack comprehensive knowledge of available social programs of assistance and means of accessing them. Additionally, nurses often lack experience in the sort of counseling that is often required in social care settings. Conversely, social workers frequently lack knowledge regarding the treatment of diseases such as HIV but possess a good knowledge about referrals for various forms of social services. All told, the broad preparation of professionals serving in case management roles begs for a degree of standardization of preparation that currently is not seen in clinical practice settings.

The barriers to effective practice cited by the participants coupled with participants' reflection on the adequacy of their preparation for practice provide an excellent basis for examining the overall preparedness of case managers. In fact 87.7% of participants reported having been inadequately prepared for entry to practice. This fact is somewhat daunting as the average work experience of case managers reported 7 years and yet still feel unprepared when working their clients. The most commonly reported barriers to practice reflected this lack of preparation. For instance, nearly all participants cited lack of skill in navigating complex administrative processes and lack of knowledge about access to external programs for clients. While many of the barriers to practice in their first year of practice reflected resource scarcity and a heavy workload, a notable percentage of participants reported having experienced fear in working with PLHA. This point is concerning the majority

of the sample reporting years of experience and graduating from Bachelor degree–level nursing programs. When asked to reflect on means by which this situation might be improved, participants' responses reflected regarding need to improve case management and HIV-specific training, primarily during their collegiate education.

Participants cited significant limitations related to cultural competency. For instance 9.8% reported a lack of experience in multicultural settings and a total of 9% reported lack of language skills as a significant barrier (7.4% Spanish, 1.6% French Creole). While cultural barriers were reported by a relatively small proportion of the sample, these statistics are significant given the dual concerns represented by the high proportion of Spanish and French Creole Speakers in Florida and their concurrent high levels of infection with the virus. All told, the data reflected a lack of perceived preparation for initial entry to practice. These findings were unique to this study.

Case Manager–Reported Stressors

Stress is a predictable outcome of case management when one considers the notable gaps in preparation of case managers for practice and the many barriers to effective case manager practice. Stressors, much like the barriers discussed earlier tend to arise from several primary sources. The first, and perhaps least surprising, was related to the issue of resource scarcity. This was followed closely by clinical issues such as difficulty influencing client behaviors. Finally, administrative burden was a stressor consistently reported by case managers. The findings of this study, as they concern stressors affecting job performance, are consistent with those of Grube and Chernesky (2001), who found that case managers operated in a "crisis mode" when under stress.

Case Manager Effectiveness: Directions for Future Research

The results of the study illustrate the diversity of case managers in terms of their professional preparation (see Table 1). Additionally, there are profound differences in case managers' preparation for clinical practice. This results in a dilemma associated with future studies that seek to perform causal analysis regarding the presence or lack of clinical benefit associated with case management interventions, particularly when considering randomized clinical trials. Very few studies have demonstrated beneficial effects associated with case management interventions that are quantifiable through clinical criteria such as viral load or CD-4 count. For instance, Wohl et al. (2006) and Kushel et al. (2006) linked care optimizing interventions with actual disease related outcomes. These studies, however, failed to link these clinical effects to a specific component of case management approaches. Thus, there have

been no interventions that associated specific case manager attributes with outcomes.

People living with HIV/AIDS require significant support due to the costs associated with therapy, the chronic nature of the disease process and the highly complex nature of the disease. For instance, a variety of studies performed by Lehrman et al. (2001), Lo et al. (2002), Sherer et al. (2002), Valverde et al. (2004), and Gardner et al. (2005) indicated the extensive service needs of PLHA. While these studies did not include linkages to easily measureable outcomes, they did demonstrate that, in general, case management interventions lead to increases in access to vitally needed services for PLHA. The establishment of service linkages is an important component of HIV care; however, these studies fail to identify the specific components of case management interventions and specific case manager attributes associated with the linkage enhancements.

In essence, case management services are a central component of most HIV treatment programs. Substantial resources are expended in supporting these programs. Thus, it is essential that a better understanding is obtained about what offers the most beneficial to PLHA in terms of (a) the various components and types of case management intervention and (b) the various attributes of the case manager (created by differences in case manager training and preparation). This would require randomized clinical trials of different types of case management intervention and case manager attribute. This is an essential aspect of developing case manager core curricula and training programs that cultivate case manager qualities that are most likely to benefit people in treatment.

Implications for Social Worker Practice

The results of this study are broad ranging, and relate to several aspects of the social care of PLHA. In a very basic sense, the results of the study call for a broader understanding of case management professionals, regardless of their professional discipline. Ryan White CARE Act funded care, by statute, integrates case management services in order to enhance the provision of care. A wide range of roles were described from ensuring initial access to medical, dental, and psychological services to maintaining individual client needs. As such, it serves as the primary vehicle for coordinating social care. The costs associated with this element of care funded by the Act demand a closer examination (i.e., via RCTs) to ensure these expenditures are, in fact, warranted. For instance, given current research, there is insufficient evidence that the current case management model is superior to other forms of care coordination. The current clinical implications associated with the study are more direct. Given the data presented here, it is essential that clinical agencies strive for more systematic and uniform clinical training and orientation for new case managers. The gaps in the current system must

mean that there are times when the service provided to PLHA is compromised because case management professionals are struggling on-the-job to gain the competencies needed for practice. Those designing and implementing case management interventions must take into consideration the broad range of professional disciplines and developmental pathways represented among case managers.

STUDY LIMITATIONS

The primary limitations of this study include the representativeness of the sample and uncertainty regarding response rates. While the study involved a statewide sample of agencies, and as such likely represents case managers in the state well, we cannot be sure the findings apply to other states, the United States as a whole, or other countries. There are structural differences in each of the state arising from state level administration of Ryan White CARE Act funds. Additionally, we do not know the number of case managers working in Florida and consequently, we have no way of knowing what percentage of case managers in the state were represented in the sample. An additional limitation to the study is related to the effect of full implementation of the Affordable CARE Act. Full implementation may well alter the pattern of needs experienced by persons living with HIV/AIDS and may concurrently alter the dynamics of care provision on the systemic level.

RECOMMENDATIONS FOR FUTURE STUDY

It is imperative that randomized clinical trials of case management interventions be performed. This is especially important given current funding shortages and the likelihood of budget cuts associated with the upcoming election cycle. After all, it would be unacceptable to administer a medical therapy without such a trial. The current study illustrated the diverse nature of the case management workforce. When one couples this result with the finding that case managers' perceive key shortcomings and gaps in their training, studies are required to determine optimal training and/or selection for service as a case manager.

CONCLUSION

PLHA, regardless of their ability to pay for care, deserve the highest quality care available. The current literature pertaining to the case management system indicates this system has a variety of beneficial outcomes. However, our ability to attribute these outcomes to any specific component of the case

management system is currently limited. The current study provided evidence of a diversity of professionals employed in case management. When one considers the results of the current study, a startling trend materialized. For instance, the widespread lack of perceived preparation for entry to practice (87.7% reported this perception) bespeaks a situation in which both case managers and clients alike are suffering unnecessarily. Given that case management plays a central role in the coordination of care, it is essential that we work to understand the relationship between such components and clinical and other types of outcomes. While professional diversity in interdisciplinary settings undoubtedly has benefits, it also presents challenges. For instance, how do we ensure that each professional is prepared for entry to practice such that care is of sufficient quality on day one of clinical practice? The implementation of research efforts such as those described in this article will provide a basis for enhancing the care of PLHA.

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