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Amber Vermeesch

University of Portland, vermeesc@up.edu

Joseph P. De Santis

Aubrey Florom-Smith

Susana Barroso

Diego De Leon

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Motivation, Management, and Mastery:
A Theory of Resilience in the Context of HIV Infection
Joseph P. De Santis, PhD, ARNP, ACRN Associate
Professor
and
Aubrey Florom-Smith, PhD(c), BSN, RN
Amber Vermeesch, PhD, MSN, RN, NP-C
Susana Barroso, BSN, RN
Doctoral Students
University of Miami School of Nursing & Health Studies
Coral Gables, FL

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Abstract

Background: Clients with HIV infection have been conceptualized as a resilient population.

Although a few studies have documented resilience among clients with HIV infection, a theory of resilience in the context of HIV infection has not been developed. The purpose of this study was to describe the process by which resilience occurs in the context of HIV infection.

Method: Grounded theory methodology was used to sample and analyze data from 15 qualitative interviews with adults with HIV infection. Data were collected until data saturation was reached.

Results: A new theory, *Motivation, Management, and Mastery*, that describes the process by which resilience occurs in the context of HIV infection emerged from the data.

Conclusion: Many clients living with HIV infection are resilient despite the physical, psychological, and social challenges of this chronic illness. Nursing interventions to promote resilience among clients with HIV infection should be directed toward identification of client motivation factors and disease management strategies that may influence health outcomes of people living with HIV infection.

Motivation, Management, and Mastery:

A Theory of Resilience in the Context of HIV Infection

Background

Care and treatment of clients with HIV infection has changed dramatically since HIV emerged in 1981. For the first 15 years of the epidemic, HIV was a terminal illness. With the advent of antiretroviral therapy (ART) in the 1990s, HIV became a chronic, manageable illness (Mahungu, Rodger, & Johnson, 2009). Adherence to ART decreases morbidity and mortality and dramatically increases quality of life for clients infected with HIV (Lavalle et al., 2000).

Clients with HIV infection were initially conceptualized as a vulnerable population because of the physical, psychological, and social sequelae of the disease process (Flaskerud & Winslow, 1998). Despite this conceptualization, some clients with HIV infection were viewed as resilient, notwithstanding the terminal nature of the disease process during that time (Siegel & Meyer, 1999). Even though a number of research studies have been conducted on resilience in the context of HIV infection, the concept of resilience in the context of HIV infection is not consistently defined and used (De Santis, 2008). In addition, a theory that describes the process by which resilience occurs in the context of HIV infection has not been developed.

Review of the Literature

Resilience is defined as a process that occurs when an individual is confronted with adversity, yet is able to surmount, respond, and adapt to adversity. Resilience may be influenced by genetics, exposure and experience with adversity, the desire to succeed, the presence of mentors or role models, and pro-social skills that allow the individual to seek support from others (Dyer & McGuinness, 1996). A number of studies over the past 30 years have studied resilience in a number of populations. Findings indicate that resilience can be described as an individual trait, an environmental trait, or processes/mechanisms that allow an individual to access these strengths when confronted with adversity. Despite the wealth of research studies that have been focused on resilience, debate regarding the usefulness of resilience as a concept continues (Ungar, 2011).

When examining resilience in the context of HIV infection, fewer studies have explored resilience among people infected with HIV. Six studies were located that focused on resilience in the context of HIV infection. These studies were located using CINAHL, ERIC, MEDLINE, LGBT Life, and PUBMED databases. The studies were limited to the years of 2000 to 2010. Key words used during the literature search were AIDS, HIV, resilient, resilience, and resiliency. The six research studies were used as a basis to develop questions for the qualitative interview guide for this study.

In addition to the six research studies that comprise the review of literature, a search revealed three additional articles that were not included in the review of the literature. One study was eliminated because it focused on resiliency and sexual trauma among adults with HIV infection who experienced childhood sexual abuse (Tarakeshwar, Hansen, Kochman, Fox, & Sikkema, 2006). This source was not included because not all people with HIV infection have experienced sexual trauma from childhood sexual abuse. A study by Kelly and colleagues (2000) was not included because it focused on psychological adjustment to HIV infection, a closely related concept. Another study by New and colleagues (2007) also focused on psychological adjustment in children and families with HIV infection. No measure of resilience was included in this study.

Farber and colleagues (2000) studied resilience factors promoting adaptation to HIV infection. A sample of 200 adults with HIV infection completed measures of resilience, medical outcomes, and psychological symptoms. The sample was comprised mostly of men (73%) and African-Americans (68%) receiving HIV care in an urban setting. Participants completed measures of resilience, medical outcomes, psychological symptoms, and personal beliefs. A regression analysis revealed that resilience accounted for 25% of the variance in psychological distress ($\Delta R^2 = .25$, $F(3, 196) = 23.09$, $p < .001$). These results led researchers to conclude that resilience was essential in assisting those with HIV infection to cope with and adapt to life with HIV infection.

Thompson (2003) used grounded theory methodology to describe the experiences of gay men residing in the U.S. and Ireland with HIV infection who were very ill from HIV infection but had regained their health because of ART. Three themes emerged that described resilience: Uncertainty vs. Intolerance for Ambiguity, Work vs. Disability, and Intimacy vs. Detachment. Participants who were more resilient were able to tolerate the uncertainty of life with HIV infection; were able to be employed, which increased self-worth; and were able to form and maintain intimate relationships with others.

Dyer and colleagues (2004) used four exemplar case studies of clients living with HIV infection to describe the antecedents, consequences, and outcomes of resilience. Clients included a 14 year old perinatally-infected Hispanic female, a 32 year old Caucasian gay man, a 45 year old Russian immigrant woman, and a 70 year old African-American male with a substance abuse disorder. The researchers concluded that the therapeutic relationships with healthcare providers were important in fostering resilience among clients with HIV infection. Healthcare providers used the therapeutic process to mentor clients, to model pro-social skills, and to provide coping skills which helped clients adhere to ART and to manage life with HIV infection.

Bletzer (2007) studied resilience in two rural African-Americans using a case study approach. Despite the life disruption that the diagnosis of HIV caused, participants used the diagnosis as an opportunity to address substance abuse and commercial sex work. Resilience for participants occurred in relation to knowledge of their illness, self-responsibility, persistence, control, present time orientation, and a reconnection to cultural backgrounds. Focusing on order instead of chaos allowed the participants to access community and healthcare resources that assisted them in dealing with aspects of living with HIV infection.

Gosselink and Myllykangas (2007) surveyed four older American women living in the U.S. using quantitative and qualitative methods. The women were between 50 and 56 years of age, three participants were Caucasian, and one participant was African-American. The authors found the participants exhibited more resilience as their illness trajectory progressed. Because of

their resilience and spirituality, participants were able to overcome barriers such as ageism, sexism, and stigmatization.

Emlert and colleagues (2010) used qualitative methodology to study resilience in the context of aging with adults aged 50 years and older living with HIV infection ($n = 25$). Seven themes emerged from the interviews: Self-acceptance, Optimism, Will to live, Generativity, Self-management, Relational living, and Independence. The researchers concluded that resilience emphasizes coping and the ability to overcome adversity. By overcoming adversity, an opportunity for growth is available that assists clients to become resilient as they age and live with a chronic illness.

A review of the available literature on resilience in the context of HIV infection revealed a gap in the knowledge base. Although the six available studies documented the concept of resilience among clients with HIV infection, no studies to date could be located that document the process by which resilience occurs. Therefore, the purpose of this study is to develop a theory grounded in qualitative data that describes the process by which resilience occurs within the context of HIV infection.

Method

Design

Grounded theory was used to describe the process of resilience in the context of HIV infection. This type of qualitative research is used to generate a theory that explains an action, process, or interaction among phenomena (Creswell, 2007; Glaser & Strauss, 1967; Strauss & Corbin, 1990). Grounded theory involves the process of collecting data, identifying categories or themes, connecting the categories and themes, and generating a theory that explains the process of a phenomenon. The theory that is generated is an abstract description of a process that is grounded in the data (Glaser & Strauss, 1967).

This study is a report of unpublished data on resilience from a larger study that examined vulnerability and resilience among adults living with HIV infection. The data on vulnerability among adults living with HIV infection are in press (De Santis & Barroso, in press).

Sample

A sample of 15 adults with HIV infection was recruited from a university-based Adult Immunology Research clinic using theoretical sampling. Theoretical sampling is the intentional sampling of a population with firsthand knowledge of the phenomena that is used to generate theory (Strauss & Corbin, 1990).

Participants were required to meet eligibility criteria. Inclusion criteria included: a) A self-reported diagnosis of HIV or AIDS; b) Age 18 years or older; and c) Ability to read, write, and speak English.

The sample size for the study was established by saturation of the data. Saturation is a subjective determination made by the researcher that additional data will not result in new information, themes, or categories (Glaser & Strauss, 1967). Saturation was achieved by the thirteenth interview, but two subsequent interviews were conducted to ensure consistency among the data. Participants were compensated with \$50 USD upon completion of the interview.

The sample of 15 adults with HIV infection consisted of eight women and seven men. Fourteen of the participants were either Black or Hispanic. These participants had lived with HIV infection from 2 to 28 years. Nearly all of the participants were receiving ART for HIV infection, and 11 participants reported at least one additional diagnosis in addition to HIV infection. A more complete demographic profile for each of the 15 participants is detailed in Table 1.

Data Collection

Data were collected using audio-recorded interviews. A semi-structured interview guide was used to direct data collection. Questions that comprised the interview guide are included in Table 2. Consistent with grounded theory methodology, additional questions were added, deleted, or modified based on previous interviews (Creswell, 2007; Strauss & Corbin, 1990).

The duration of the interviews ranged from 1 to 1.5 hours. Field notes were written at the completion of each interview by the first author. The field notes were used to summarize the

interview, list answered questions, and to describe tentative themes (Mack, Woodson, MacQueen, Guest & Namez, 2005). Each interview was then transcribed verbatim.

Ethical Considerations

The study was approved by the University of Miami's Institutional Review Board. Participants signed an informed consent to participate and an additional consent for audio-recording of the interviews prior to participation.

Protection of confidentiality was an additional concern. In order to protect the confidentiality of participants, each participant was assigned a number upon enrollment. Participants were instructed not to provide their names or other identifying information on the audio-tape to protect confidentiality. Consents were stored separately from audio-tapes and interview transcripts in a double-locked office.

Interviews were conducted in the private, unoccupied office free from interruption. This was necessary to protect the confidentiality and privacy of the participants as well as to provide a safe environment in which to discuss sensitive topics such as high risk sexual behaviors and substance abuse behaviors that emerged during the interviews.

Data Analysis

The data were analyzed using techniques consistent with grounded theory methodology (Glaser & Strauss, 1967). Transcribed interviews were read and analyzed by the first author using the constant comparative method. In the first level of analysis, open coding was used to group data into codes. Axial coding was then employed to group the first level codes into higher level themes and to explore the relationships between the themes. As each additional transcript was read, the transcript was constantly compared to previously analyzed transcripts which allowed the data to be further grouped into categories or themes and modified as needed. Individual quotes from the interviews were identified that supported categories and themes to ensure credibility of the data and to ensure that the theory that emerged was grounded in the data (Glaser & Strauss, 1967).

Rigor

Two methods were used to establish rigor and to minimize researcher bias during data analysis. These methods were clarifying researcher bias and peer review/debriefing (Creswell, 2007). Clarifying researcher bias is essential since the first author has extensive clinical and research experience with clients with HIV infection. This experience had the potential to influence the study's results. In order to decrease bias, two nurses lacking clinical or research experience with clients with HIV infection who were not involved in data collection were selected to verify themes and categories identified by the first author. These two nurses had previous experience with qualitative data analysis. The two nurses verified the themes and categories by comparing the themes and categories to the data.

Peer review/debriefing was conducted by two healthcare providers specializing in HIV care and who were not involved in the data collection. The results of the study were made available to the healthcare providers to ensure that data analysis was congruent with clinical experiences in providing care to clients with HIV infection. The comments made by the nurses who assisted in clarifying researcher bias and by the healthcare providers who assisted with peer review/debriefing were incorporated into the theory that was grounded in the data.

Results

Participants provided rich descriptions of resilience in the context of HIV infection. Selected quotes provided by the participants are used to illustrate the categories and subcategories of the theory. These descriptions illustrating the process of resilience in the context of HIV infection are entitled *Motivation, Management, and Mastery*. This process contains the categories of *Motivating Factors, Managing the Disease, and Mastering of the Disease* (See Figure 1).

Motivating Factors

Participants reported that the origin of the process of resilience is motivating factors. These motivating factors are both intrinsic and extrinsic to the person living with HIV infection. Participants in this study detailed a number of factors that provided the initial motivation in their progress toward resilience. These motivating factors comprise the subcategories of *Motivating*

Factors and include *Sense of Spirituality*, *Desire to Survive*, *Disclosing with Acceptance*, *Desire for Knowledge*, and *Psychosocial Support*.

Sense of Spirituality

Spirituality was important to the participants and served as an important motivator. Spirituality was expressed as active participation in organized religious services as well as a personal relationship with a higher power. A large portion of spirituality for the participants involved –surrendering to a higher power because many of the participants also struggled with substance abuse. Participant 5 described the influence of spirituality on motivation:

Medicine is not always good for everyone, you know? I feel like it is a miracle for me because I survived. I survived and got better because I believe in God. God is my everything. I don't go to church or anything or have a religion exactly, you know? But I read the Bible. I believe in God and Christ, you know? I feel (that) I keep my faith. I believe it is a miracle for me. God made me a miracle.

The Desire to Survive

A second motivator reported by the participants was the desire to survive. In addition to the diagnosis of HIV, a chronic but potentially fatal illness, participants often struggled with substance abuse. Once participants wanted to survive, this desire was a motivator. Participant 13 summarized the desire to survive:

So you know, you got to come to the point where you say, –Well hey, I am going to fight this. This does not define me. It does not make me. But you got to get through the denial stage and that pity party. Is this really happening to me? Getting past the denial and pity, now I want to live. I actually want to live.

Disclosing with Acceptance

Another aspect that served to motivate participants was the willingness to disclose the diagnosis of HIV infection to others, and receiving acceptance from those to whom they had disclosed. Disclosing the diagnosis of HIV infection to others was a risk for participants because the potential for rejection existed. Participants chose the person they trusted most to disclose this

extremely intimate secret. After disclosing their diagnosis and being accepted by the person to whom they disclosed, participants reported feeling motivated by the experience, as described by

Participant 12:

Well, then I told my mother my situation. I figured she was going to respond in a negative way and fall apart. And she didn't. She was strong. So I said, -This is not as bad as I thought. This is something I can fight. Before this I had a hard time with this, carrying all this inside me. And after telling her and seeing how she responded, that let me know that I can get stronger from this. I can rebuild myself and be the person I used to be.

Psychosocial Support

After disclosing the diagnosis of HIV infection, participants were able to access psychosocial support from those to whom they had disclosed. Support from family and friends is essential in dealing with HIV infection, according to the participants. In cases where psychosocial support is lost or not available from family, friends, and partners, participants found support from HIV-related support groups. In addition, psychosocial support obtained from others living with the same disease state helped to motivate the person toward resilience, as reported by Participant 6:

I see that my other friends have gone through the same thing as me. I call them friends because they are in the same group, you know? Everybody with the same condition in that group is like a family to me. When I have these good people around me, it helps. They are waiting on you. This one needs you. They give you a purpose, and need and help (you) gain that self-esteem back.

Desire for Knowledge

Building on all the other motivators, participants discovered a need to educate themselves about HIV infection. In order to achieve this, participants enrolled in classes and psycho-educational groups offered at the university-based HIV clinic where they received care. The knowledge gained in these classes and groups further motivated participants, as summarized by Participant 6:

What made me bounce back was when I started going to the classes, the adult HIV classes, which gave me the education I needed. That education helped me to improve the qualities in my life _cause it taught me what to do, how to do it, what not to do, and what to continue to do to keep me alive.

Managing the Illness

Building on motivation to progress toward resilience, participants next began the process of managing HIV infection. *Managing the Illness* was the second category that emerged from the data. Managing the Illness is composed of two subcategories: *Self-care* and *Psychological Health*.

Self-care

The first subcategory of *Managing the Illness* focuses on participants gaining or attempting to gain control of their physical health. The participants voiced many physical manifestations of HIV infection, such as weight loss and body changes, that required attention in order to stave off disease progression. It was during this focus on the physical self that participants began to commit to managing the disease by adhering to antiretroviral therapy (ART), as described by Participant 6:

...Because the more you try, the better your results are. If you don't try to take your medicine, guess what? Your numbers (t-cells) are going to go down. (In a mocking voice). -I can't take the medicine! I don't want to take the medicine!! You are going to go down. But then every day you say, -I went to the doctor today. My t-cells went up to 200. Maybe they can go more. My viral load is undetectable!! It makes you want to go higher and higher.

Participant 7 reported:

_Cause (taking care of yourself) is the only way. That's the only way for a person that been positive with the virus to take care of themselves: without stress. And stress ain't easy to get rid of, but we have doctors. There's treatment, there's medication. Things that we can do. And finding time to have for ourself. I find time to have to myself.

Psychological Health

Once participants were able to manage the physical aspects of HIV infection, the focus shifted to psychological/mental health. Many participants reported that they had been diagnosed with co-occurring mental health and substance abuse disorders. Participants realized that in order to successfully manage this chronic illness, it was just as important to focus on psychological/mental health as it was to focus on physical health. Participant 15 provided a summary of the importance of managing the psychological aspects of HIV infection:

(By managing psychological health) it teaches you more patience. You are much better (mentally) then you were before about a lot of things. It gives you more willpower. It makes me fight harder. No matter what people throw at me about HIV now, it doesn't bother me. It bothers me that people could be so ignorant, but it doesn't put me in a depression and make me want to hide my head in the sand.

Mastering the Disease

Once physical and psychological health has been addressed, participants reported that the next component of the process of resilience in the context of HIV infection is *Mastering the Disease*. For participants, mastering the disease meant that they had learned to manage the physical and psychological aspects of HIV infection and that they were able to regain a sense of control over their lives. By learning to manage the aspects of HIV infection, participants were able to become experts in the management HIV infection by transforming management into mastery through advocacy and positive health outcomes.

Advocating for Self and Others

An important component of mastery, according to the participants, is the ability to learn and master self-advocacy, and then become advocates for others living with HIV infection. Participants were able to engage in advocacy via participation in support groups, outreach, workshops, public speaking, volunteerism, and informal education of others in the community. All participants verbalized a strong desire to become peer educators so that they could formally

educate others about HIV infection and to provide a platform for advocacy. Participant 3 described the importance of advocacy for self and others:

This (advocacy) makes you more savvy, stronger... You try to help other people. I see that with everybody that I know who is (HIV) positive. They are always trying to help each other in clinic. At first no one would listen to you and now you see these same people and they will be sitting down next to someone who recently found out (that they were infected with HIV). (That person is) totally rigid and these people are talking openly about it...about their medications and the side effects. And you relay it to other people and you can teach them how to become resilient and that you need a positive attitude. No, you are not going to die and this is what you can do. So, it's wonderful if you can teach someone else.

Achieving Positive Health Outcomes

The second subcategory of *Mastering the Disease* is *Achieving Positive Health Outcomes*. Positive health outcomes, according to the participants, were described as ways that people with HIV infection could be healthy despite this chronic condition. By mastering the disease, participants were able to achieve positive health outcomes, as described by Participant 13:

I believe that the results or consequences of being resilient can be better health. I figure if you are (HIV) positive, you try to be resilient and try to be positive (in your thinking), your body will follow through on that. I figure you won't be as sick. You will be sick less often. Your t-cell count will be much higher.

Participant 7 further expanded this subcategory by including the importance of mastering all aspects of the disease:

(Resilience) is not just learning, but practicing safe(r) sex, practicing a clean life, practicing how to eat well—what to eat and what not to eat, to look and be healthy. You find a way to make it. You don't quit or give up. I say no to drugs, to alcohol, to unprotected sex. Saying no and keeping moving.

Becoming Resilient

Drawing on sources of motivation, learning to manage the disease, and mastering the disease all serve as antecedents of *Becoming Resilient* for people living with HIV infection. After these processes have been completed, according to the participants, a person with HIV may become resilient. Participants voiced that the process of resilience is a continuous, dynamic, personal struggle with HIV infection. Becoming resilient for people with HIV infection had the following connotations or meanings for the participants:

(Resilience) is that which I wasn't able to do at one time: talk about this. I could not express it and now it is something I have no problem doing. Now I can have my life back and be the best that I can be and be myself again. (Participant 12)

Well, (resilience is) going through adversity, going through something that is not a pleasant experience and learning from it, growing from it. (Participant 13)

I've got a lot to look forward to and I am not going to let this take me out. I've grown from this and I've gotten stronger. So resilience equals strength. I've gained strength through resilience from dealing with this over time. (Participant 14)

You've got to get a grip on it and manage through the depression, denial, anger, and hate. You got to get beyond that and work and work getting yourself as good as you can be. Life with AIDS is good. It's exactly what you put into it, you get out of it. If you shut down, life is bad...but you learn to manage all these things and life is good. Life is good. (Participant 15)

Discussion:

The purpose of this study was to describe the process by which resilience occurs in the context of HIV infection using grounded theory. A definition of resilience emerged from the data in the context of HIV infection, resilience is the process by which an individual accesses internal motivation (e.g., a desire to survive) and external motivation (e.g., psychosocial support) that provides a basis for clients to learn to manage the physical and psychological aspects of HIV infection. Once the individual learns to manage their illness, a sense of mastery develops from advocating for self and others as well as achieving positive health outcomes. The end result is that clients eventually become resilient.

The process of gaining resilience in the context of HIV infection has important implications for nurses, healthcare providers, and for individuals with HIV infection. Resilience, or a lack thereof, can make the difference between succumbing to HIV or adapting to life with a stigmatizing chronic illness. Assessing for the factors of the first component of resilience in the context of HIV infection, *Motivating Factors*, can assist clients to identify, access, and strengthen these factors. Among individuals with HIV infection, a spiritual struggle has been found to affect self-care concerns such as HIV symptoms, medication and disclosure apprehension, and overall HIV mastery (Trevino et al., 2010). After ascertaining the influence or importance of spirituality to clients, healthcare providers provide clients with information about the positive health outcomes that have been found with increased spirituality (e.g., Bormann, Aschbacher, Wetherell, Roesch, & Redwine, 2009; Margolin et al., 2007). Healthcare providers can then connect these individuals desiring increased spirituality with houses of worship, prayer groups, or faith-based community organizations as warranted.

Although great progress has been made in HIV treatment, for some people, learning they are infected with HIV results in a fear of imminent death (Enriquez et al., 2010). Early post-diagnosis interaction between clients and healthcare providers provides a unique opportunity for healthcare providers to focus on educational initiatives that introduce the manageable, chronic nature of HIV to clients, and provides information on how individuals infected with HIV can best promote health and prevent the development of illness. These first steps may be critical in fostering the desire to survive in individuals with HIV infection. By providing open, non-judgmental discourse, by providing clinical knowledge necessary to make informed decisions, and by assisting individuals with HIV to access resources such as support groups, healthcare providers can ensure individuals are receiving the necessary accurate information and psychosocial support critical for more positive health outcomes (Teti et al., 2007; 2010).

To ensure clients are receiving the greatest amount of psychosocial support, encouragement, and information from peer support groups, it may be important to consider such factors as the experience, gender, sexual orientation, or culture of the peer facilitator. In order

for clients to glean the most from a support group, healthcare providers can assist in locating support groups that closely mirror, to the extent possible, the facets of the client that he or she considers most important, such as culture or sexual orientation. A peer facilitator or educator of the same culture or sexual orientation as clients may be more acceptable to the client, thereby ensuring that clients are provided with needed psychosocial support and educational information (McKirman, Tolou-Shams, & Courtenay-Quirk, 2010; Teti et al., 2007).

Disclosure of one's serostatus to others is a challenging task for clients. However, disclosure has been found to improve multiple mental health conditions as well as promote effective family communication (Murphy, Armistead, Marelich, Payne, & Herbeck, 2011; Zea, Reisen, Poppen, Bianchi, & Echeverry, 2005). Assisting clients in decision-making regarding serostatus disclosure through education based on the positive outcomes associated with disclosure can be accomplished in the clinical setting by healthcare providers, but guidance from peer support groups is helpful when considering both the facilitators and barriers of disclosure, as well as strategies to assist clients with disclosure.

After clients have engaged their *Motivating Factors*, they are ready to *Manage the Disease*. Improved quality of life among individuals with HIV infection has been found to be associated with a healthy lifestyle (Vyavaharkar, Moneyham, Murdaugh, & Tavakoli, 2011). As such, clients must manage the physical aspects of HIV infection prior to maintaining psychological health. Healthcare providers can assist in this process by assessing the level of self-care employed by clients. Issues requiring further education or intervention can be identified and addressed. Importantly, because HIV is only treatable through medication adherence, clients not taking medications as prescribed will experience negative health outcomes. Assessment of factors influencing medication adherence such as substance use (Parsons, Rosof, & Mustanski, 2008); intimate partner violence (Rose, House, & Steplemen, 2010); and depression (Tegger et al., 2008) should be an ongoing endeavor, and connection of clients to appropriate care and treatment should ensue if necessary.

For individuals with HIV infection who are adherent to their medication regimens, psychological health is the next step in gaining resilience in the context of HIV infection. It is important for healthcare providers to assess for psychological health conditions, such as depression, HIV-related stigma, or even employment status, that have the potential to impact quality of life in terms of mental health (Buseh, Kelber, Stevens, & Park, 2008; Rueda et al., 2011; Vyavaharkar et al., 2010). Upon identification of conditions or influences, healthcare providers can help clients access needed mental health or social services.

Once optimum physical and psychological health is achieved, individuals with HIV infection continue to gain resilience in the context of HIV infection through *Mastering the Disease*. Advocacy, for oneself and others, can be considered an aspect of mastery, as advocacy implies a sense of self-efficacy (Pearlin, Lieberman, Menaghan, & Mullan, 1981). As peer counselors or educators, clients living with HIV infection can provide practical examples of how to manage life with HIV infection for others living with the same illness (Hilfinger Messias, Moneyham, Vyavaharkar, Murdaugh, & Phillips, 2009). This advocacy helps those who receive these support services to understand treatment of HIV infection; assists with adherence; and allows clients an avenue to discuss HIV and other health issues (Mutchler et al., 2011). Encouraging clients expressing interest in peer counseling or advocacy to connect with community based organizations or other agencies offering these services serves two purposes, by promoting mastery for the peer counselor or educator, and promoting motivating factors for those receiving advocacy services.

Positive health outcomes make up the next piece of *Mastering the Disease*, as this component of mastery indicates a sense of control over significant influences on one's life (Pearlin et al., 1981). The importance of achieving mastery should be emphasized to clients, as mastery has been found to combat depression and HIV-related stigma (Rueda et al, 2011). Healthcare providers can assist clients to draw on their relationships with others (e.g. family, intimate relationships, or those in peer support groups) during times of additional adversity and to assist them in achieving and maintaining resilience (Dyer et al., 2004).

Finally, healthcare providers must ensure that clients recognize that they have gained resilience in the context of HIV infection, by educating clients on the importance of self-acceptance, acceptance of life with a chronic illness, and personal competence that has assisted clients in becoming resilient. Clients may require help from their healthcare providers in the realization that resilience equates to self-reliance, independence, determination, resourcefulness, perseverance, adaptability, and flexibility (Wagnild & Young, 1993). Knowledge of those positive characteristics could encourage clients to continually strive for personal resilience and personal growth despite the adversity associated with living with HIV infection.

Directions for further theory development can be drawn from the results of the study. The next logical step would be to design a quantitative study that would be used to test this theory. Further understanding of the relationships of the components of the theory would inform future studies that could be focused on developing interventions to promote adherence among people living with HIV infection.

Limitations

This study was designed to develop a theory of resilience in the context of HIV infection. Despite filling a gap in the knowledge base of resilience in the context of HIV infection, one major limitation of this study exists. This major limitation is the manner in which participants were recruited for the study. The sample was drawn from the population of clients at a large university-based HIV clinical research unit. In addition to receiving HIV care at the clinical research unit, participants were eligible to receive mental health care that included substance abuse treatment. The holistic care provided at the university-based HIV clinical research unit may have supported the participants in managing the physical and psychosocial aspects of HIV infection, and may have contributed to their insights on resilience in the context of HIV.

Summary

Despite the physical and psychological changes that occur from a diagnosis of HIV infection, over time the majority of clients learn to adapt to and manage the illness. From qualitative interviews with adults living with HIV infection, the process by which they overcome

the adversity of HIV infection and learn to live with HIV infection has been described. The results of this study provide some new information to the knowledge base of HIV infection in the context of HIV infection. Additional theoretical and empirical work is necessary to further develop the concept of resilience in the context of HIV infection.

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