

## Attachment styles of People Living with HIV/AIDS

### Estilos de Apego de Pessoas vivendo com HIV/AIDS

Odaleia de Oliveira Farias (<https://orcid.org/0000-0002-3700-1192>)<sup>1</sup>  
Herta de Oliveira Alexandre (<http://orcid.org/0000-0002-5800-9978>)<sup>1</sup>  
Ivana Cristina Vieira de Lima (<http://orcid.org/0000-0002-2698-9086>)<sup>2</sup>  
Marli Teresinha Gimeniz Galvão (<https://orcid.org/0000-0003-3995-9107>)<sup>1</sup>  
Robyne Hanley-Dafoe (<https://orcid.org/0000-0002-2377-1575>)<sup>3</sup>  
Vanessa da Frota Santos (<https://orcid.org/0000-0002-1198-6560>)<sup>1</sup>

**Abstract** *Factors that involve the dynamics in interpersonal relationships and may have consequences in health are still little explored in people living with HIV/AIDS. The aim was to identify the evidences of literature regarding adult attachment style and HIV. It is an Integrative literature review. Seven databases were explored, using the combination of key words and Boolean connectors: "Attachment Style OR Object Attachment AND HIV". A reasonable number of articles addressed attachment among people with HIV as a mediator to post-traumatic stress disorder, depression and stress. The prevalence of insecure attachment in this group was high. Evidence was also found in relation to the attachment as an important factor to adaptation to the diagnosis of HIV, attachment and behavior in interpersonal relationships, and emphasize the possibility of changing the attachment style.*

**Key words** *Attachment style, HIV, Object Attachment*

**Resumo** *Fatores que envolvem a dinâmica nos relacionados interpessoais e podem ter consequências na saúde ainda são pouco explorados em Pessoas vivendo com HIV/AIDS. O objetivo desse estudo é identificar as evidências na literatura relacionando estilo de apego e HIV em adultos. Trata-se de uma revisão integrativa de literatura. Sete bases de dados foram exploradas, usando a combinação das palavras-chave e dos seguintes conectores booleanos em inglês: "Attachment Style OR Object Attachment AND HIV". Um número razoável de artigos abordou o vínculo entre pessoas com HIV como mediador de transtorno de estresse pós-traumático, depressão e estresse. A prevalência de apego inseguro nesse grupo foi alta. Evidências mostram ainda a relação entre apego e a adaptação ao diagnóstico de HIV, apego e estilos de comportamento nos relacionamentos, e destacam ainda a possibilidade de modificação do tipo de apego.*

**Palavra-chave** *Estilo de anexo, HIV, Anexo de objetos*

<sup>1</sup> Departamento de Enfermagem, Universidade Federal do Ceará. R. Alexandre Baraúna 1115, Rodolfo Teófilo, 60430-160 Fortaleza CE Brasil. [odafarias@hotmail.com](mailto:odafarias@hotmail.com)

<sup>2</sup> Faculdade de Farmácia, Universidade Federal do Ceará. Fortaleza CE Brasil.

<sup>3</sup> Trent University. Peterborough Ontario Canada.

## Introduction

Characteristics of one's personality have influence on individuals behavior towards others. Interpersonal relationships are affected directly by the personality of individuals, and generate dysfunction that can result in conflicts and instability. Adult behavior and the adversities in the relationship dynamics are consequences of the first human relationships, during childhood, period where there is the formation of initial attachments<sup>1</sup>.

Attachment behavior is something different from instinct, but is as vital as food and reproduction. It is a social behavior that is easily observed in children simply a child's distress when the mother moves away or happiness when the mother returns<sup>1</sup>. In adults, the theory explains the way people connect themselves emotionally, as they make use of social relationships to mediate their emotional needs and define how to differentiate them according to their type of attachment<sup>2</sup>.

There are several classifications assigned to attachment styles, with subtle variations in the main types. The four main attachment styles are secure, preoccupied, dismissing and fearful. Preoccupied is the same as Anxious-Ambivalent, Dismissing is similar to Dismissing Avoidant, and Fearful is also known as Fearful Avoidant. Because there is a wide range of nomenclature, it is important to focus on the key features of each pattern and the formation of its internal working models. Each attachment pattern has a distinction which can be understood as characteristics of an internal working models. These models assess individuals' level of comfort or anxiety experienced when maintaining intimate relationships including a sense of self-worth and a view of appreciation of the other. It also includes a sense of the partner's personal worth of trust and love. The feature anxiety relates to self-worth and acceptance/rejection by others, and the feature deprivation refers to the degree to which a person searches or avoids intimacy and interdependence in relationships<sup>3</sup>.

Individuals demonstrating secure style of attachment present low level of anxiety and deprivation, demonstrate comfort with intimacy, want to rely on others and believe they are valued by others. People preoccupied have high level of anxiety and low deprivation, and demonstrate exaggerated interest in maintaining closeness and dependency, while have high fear of being rejected. In dismissing style there is a low level of anxiety and high deprivation, these people do

not value the formation of bonds, and appreciate independence and self-confidence. Adults fearful have high anxiety and deprivation, although they wish to engage in relationships and get approval of others, they avoid intimacy because of their fear of rejection<sup>3</sup>.

Attachment style may be associated with increasing in vulnerability. Vulnerability is defined primarily based on social processes, and it is formed by three factors: the first one is the level of exposure to risky situations; the second is the person intrinsic and extrinsic ability to react to these risks; and the last one concerns individual adaptability to cope with the situation, what depends on the extent of the risk and individual resilience<sup>4</sup>.

A factor that contributes substantially to the raising of studies about the vulnerability is the spread of Acquired Immune Deficiency Syndrome (AIDS)<sup>5</sup>. This infection has been responsible for a persistent pandemic, leading researchers to move efforts for its control. Traits inherent to interpersonal relationships and personality of people with the human immunodeficiency virus (HIV), such as degree of intimacy and forms of attachment, have been pointed as important factors for vulnerability in this population<sup>6</sup>. In general, the presence of insecure forms of attachment contributes to a greater difficulty coping with chronic diseases. Among People Living with HIV/AIDS (PLWH) insecure attachment was related to higher prevalence of depressive symptoms, Post-Traumatic Stress Disorders (PTSD), and these symptoms in this population were associated with risk behavior to HIV transmission and acquisition, such as multiple sexual partner and unprotected anal intercourse<sup>6</sup>.

Understanding factors related to personality and behavior of PLWH is a fundamental tool for the health promotion. It is important to these people to receive a treatment that is holistic, individualized and focused care with the aim to stimulate autonomy and self-care. This research is justified by the lack of scientific publications focusing on research that identifies the relationship between attachment styles as a vulnerability factor in PLWH.

The study hypothesis that insecure attachment styles increase the vulnerability to HIV infection. Therefore, the aim of this study was to identify the scientific publications about attachment style of PLWH, characterize the studies and main attachment of this population, as well as categorize the findings on relationship between attachment and HIV.

## Methods

This study is an Integrative review of the literature. Articles included in this research answered the question “What research evidence is available regarding attachment styles in adult people living with HIV (PLWH)?” and addressed attachment within the classifications defined by the attachment system<sup>1</sup>.

The choice of articles was based on a protocol developed by the researcher, in order to make the study more systematic and serve as guide for the data search. It comprised seven items including title, goals, key words, guiding question, databases as well as the inclusion and exclusion criteria. They were included in this study, articles up to December 2015, developed with adults with HIV, regardless of the language of publication. They were excluded studies duplicated.

The databases explored were Scopus, Medical Literature Analysis and Retrieval System Online (Medline)/PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane, Latin American and Caribbean Health Sciences (Lilacs), Scientific Electronic Library Online (SciELO) and PsycINFO/PsycArticles (APA). The search was done in January, 2016, using the combination of key words and Boolean connectors: “Attachment Style OR Object Attachment AND HIV”.

After the first search with the key terms it was found six articles through LILACS, six in Cochrane, 54 in Scopus, 54 in MEDLINE/PubMed, 100 in PsycINFO/PsycARTICLES, 163 in CINAHL and no article was found in the SCIELO database. The first search included a total of 383 articles, in Portuguese, English and Spanish, which were initially read by title and abstract. From the total, 40 initially met the interests of the study. Of these, 18 were duplicated, resulting in an initial sample of 22 articles, fully read. Subsequently, 12 articles were excluded, eight because explored attachment in the general sense unrelated to the attachment system and four because the sample did not consist of people with HIV (Table 1). Finally, ten studies were included in the final sample.

Studies were classified in four main thematic categories: attachment and adaptation to HIV; attachment and relationship behavior; attachment, quality of life and adherence; and Attachment as a changeable trait.

Ethical aspects were respected, and no modifications were made to the original content of the analyzed studies. In addition, copyright of mentioned research were respected.

## Results

Table 2 describes articles by country, author and year, field of the authors, journal, field of the journal and study design. Three studies were found on Cochrane database and seven on Scopus, all published in English, although research included studies up to 2015, all articles found were published between the years of 2000 and 2013. They were carried out in different countries, eight held in the United States, one in Netherlands and one in Italy. The main areas of authors were psychology, medicine and social work.

Different areas were included, such as interdisciplinary, HIV/AIDS field, sexual science, behavioral sciences, psychology and social work. About study design, nine were cross-sectional quantitative studies and one was a case report. Studies were also described in relation to the objective, sample characteristics, results and conclusions (Table 3).

Studies presented a great variability approaching the relationship between attachment and HIV. For discussion purposes, the studies were divided into four groups. Most studies investigated the use of the attachment as a mediator for HIV adaptation, relating the types of attachment with coping, view of social support, stress and depression. Other studies analyzed the relationship of bonding and sexual habits and behavior in relationships; related attachment to the quality of life and adherence to antiretroviral therapy; and explored the possibility of changing attachment to the development of security (Table 4).

## Discussion

All articles were published between 2000 and 2013. Half of the studies were published after 2010. Given that the research did not determined time as an exclusion criterion and the final sample included only ten articles, it can be inferred that research linking attachment style and HIV are recent, and still insufficiently explored.

Despite the high prevalence of insecure patterns in all studies, attention needs to be given to the presence of a large number of individuals with Fearful attachment in three articles that explored this classification<sup>7-9</sup>, compound 27%, 58% and 20% of the sample, respectively. This prevalence was also found in a study of adolescents with obsessive-compulsive personalities. According to the author, this kind of attachment is the

**Table 1.** Article selection.

Database	Total of articles	Interest	Duplicated	Fully read	Final sample
Lilacs	6	3	0	3	0
Cochrane	6	4	1	3	3
Scopus	54	19	5	14	7
PubMed	54	13	12	1	0
Scielo	0	0	0	0	0
PsycARTICLES (APA)	100	0	0	0	0
Cinahl	163	1	0	1	0
Total	383	40	18	22	10

**Table 2.** General aspects of studies

Num	Country	Authors/Year	Field/Authors	Journal	Design
1	United States of America	Koopman et al., 2000 <sup>10</sup>	Medicine/ Psychiatric	Aids Care	Quantitative, cross-sectional
2	United States of America	Turner-Cobb et al., 2002 <sup>11</sup>	Psychology	Journal of Behavioral Medicine	Quantitative, cross-sectional
3	United States of America	Ciesla et al., 2004 <sup>7</sup>	Psychology	Journal of Applied Social Psychology,	Quantitative, cross-sectional
4	United States of America	Riggs et al., 2007 <sup>8</sup>	Psychology	Journal of Health Psychology	Quantitative, cross-sectional
5	Italy	Ubbiali et al., 2008 <sup>12</sup>	Psychology	Aids Care	Quantitative, cross-sectional
6	Netherlands	Hinnen et al., 2012 <sup>9</sup>	Medicine, psychology	Aids Care	Quantitative, cross-sectional
7	United States of America	Martin et al., 2012 <sup>13</sup>	Psychology	Aids Care	Quantitative, cross-sectional
8	United States of America	Davis 2012 <sup>14</sup>	Social work	Social Work Health Care	Case study
9	United States of America	Starks and Parsons, 2014 <sup>15</sup>	Psychology	Arch Sex Behav	Quantitative, cross-sectional
10	United States of America	Gore-Felton et al., 2013 <sup>6</sup>	Psychology	Journal of Behavioral Medicine	Quantitative, cross-sectional

most problematic, the most insecure, marked by high fear of commitment. People with this pattern present high anxiety and deprivation, as well as distrust, which deprive them of developing close and stable relationships<sup>16</sup>.

Evidence suggests that the diagnosis of a disease that threatens life, such as AIDS, can produce enough trauma to influence the formation of attachment. Around 90% of PLWH have insecure attachment of some sort, though it was unclear whether the type of attachment was present after the diagnosis or it was a vulnerability factor for contagious<sup>8</sup>.

Articles that explored Attachment and adaptation to HIV diagnosis assessed variables as stigma, stress, positive state of mind, depression

and social support. Researches have emphasized that attachment style, as well as internal working models of self and others, are responsible for people adjust to major events in life and also for chronic diseases in adulthood<sup>17</sup>.

Living with HIV/AIDS involves facing individual challenges, difficulties to maintain interpersonal relationships and deal with society prejudices. Afflictions arise regarding live with a chronic condition, perception of social judgments, which can be psychologically damaging. An example of this is that there are a reasonable number of PLWH who have symptoms of Post-traumatic stress disorder<sup>6</sup>. Then, thinking of the psychological factors of adaptation to HIV, the formation of a secure attachment has shown high relevance.

**Table 3.** Exploration of content of the studies.

Num	Objective	Sex	Results and Conclusions
1	To examine the relationship between coping, attachment style and perception of social support in patients with HIV.	F = 67 M = 80	Score in perceived stress scale was significantly higher among participants who reported less secure attachment style and more anxious.
2	To observe psychological correlations for adaptation to HIV/AIDS.	F = 59 M = 78	The score in the inventory of social support was significantly higher among participants with more secure attachment. A diverse sample of women and men with HIV, social support, attachment and coping accounted for more than a third of the variance in predicting positive states of mind, suggesting that there are more positive state of mind predictors in this population.
3	To investigate the relationship between adult attachment style and sexual behavior in PLWH.	F = 6 M = 42	Insecure and Fearful attachment styles were associated with having multiple sex partners, including partners without HIV. It seems that negative working models of self was associated with both total number of sex partners and number of sex partners put at risk of contracting HIV. This analysis reveals that attachment anxiety predicts risk partners.
4	To explore how adult attachment style can be related to the experience of psychological distress and stigma for HIV.	F = 138 M = 150	There was a predominance of insecure attachments (90%). Heterosexuals were more prone to be Secure or Fearful and less prone to be Preoccupied or Dismissing. Bisexuals were more likely to be Dismissing and less to be Secure or Fearful. Secure adults reported significantly less stress and depression than the three groups of insecure.
5	To identify different psychological profiles related to adherence and non-adherence of subjects.	F = 136 M = 342	The psychological profile of men who did not adhere to antiretroviral therapy seemed less focused on the relational aspects (need for approval and concern for relationships) and perceived relevance of doctors and a "significant other", whereas the non-adherent women seemed more relationship-oriented. These do not seem to avoid relationships, but worry excessively about feedback or possible rejections. This can reduce surveillance on the disease and commitment to therapy.
6	To investigate the relationship between adult attachment style and depressive symptoms in patients with HIV.	F = 24 M = 209	Among the 64 patients who reported high levels of depressive symptoms, 13 (20%) were securely attached and 51 (80%) were insecurely attached (16% preoccupied, 39% dismissing, and 25% fearful).
7	To identify the main effects of attachment style and forgiveness in the quality of life of adults with HIV.	F = 141 M = 147	Anxious attachment was inversely related to quality of life regarding physical health and pain. Forgiveness of others was associated with greater pain and forgiveness of self was associated with improvement in the perception of health. Latino participants reported more avoidant attachment than other cultures. Avoidant attachment was negatively related to forgiveness of self and others, confirming that individuals with avoidant forms of attachment use less forgiveness as a way to cope with problems.
8	To explore the way that women can experience stigma for incorporate negative social views of HIV and domestic violence.	F = 2	Through intervention, women have been able to contain crisis, internalized consistent care professionals and regulated affection. Become more able to invest and explore the world and develop stability through support. Visits them to the clinic were becoming less frequent. They were less involved until an emotional crisis back to activate the attachment system and they needed more contact.

it continues

**Table 3.** Exploration of content of the studies.

Num	Objective	Sex	Results and Conclusions
9	To examine the attachment patterns of gay men partners in a community.	M = 344	Men anxious avoidant, as well as those with anxious partners had significantly lower scores in sexual communication compared with insurance. They also reported significantly more casual unprotected anal sex (31.5 times more). Men whose partner was ambivalent and anxious avoidant significantly less likely to report having had at least weekly relationship with their partners than men with partners securely attached.
10	To increase understanding of the factors associated with the development of post-traumatic stress disorder (PTSD).	F = 59 M = 35	30% of people had symptoms of PTSD. PTSD symptoms were associated with insecure attachment style, avoidant and insecure. Avoidant attachment and emotional coping to deal with HIV was positively and significantly associated with symptoms of PTSD. Attachment style is related to psychological consequences in adulthood in PLWHA in these less social support was related to more avoidant symptoms. The study shows a significant association between previous trauma and HIV, with a corresponding stress coping response.

**Table 4.** Categorization of studies

Articles	Category
Koopman et al., 2000 <sup>10</sup> Turner-Cobb et al., 2002 <sup>11</sup> Riggs et al., 2007 <sup>8</sup> Hinnen et al., 2012 <sup>9</sup> Gore-Felton et al., 2013 <sup>6</sup>	Attachment and adaptation to HIV
Ciesla et al., 2004 <sup>7</sup> Starks and Parsons, 2014 <sup>15</sup>	Attachment and relationship behavior
Ubbiali et al., 2008 <sup>12</sup> Martin et al., 2012 <sup>13</sup>	Attachment, quality of life and adherence
Davis 2012 <sup>14</sup>	Attachment as a changeable trait

Attachment style may determine the view that PLWH have about social support, and the demand for this in times of need<sup>18</sup>. Perceived social support was identified as positive factor in the formation of attachment security. Otherwise, if an individual believes that he is less socially supported, the chances of engaging in risky behavior are higher, as long-term chances of survival are lower<sup>9</sup>.

Difficulties related to the development of coping strategies and insecure attachment patterns contribute to the perceived stress in PLWH. Subjects with anxious and less secure attachments were highly vigilant in relationships, which predisposes interpretation bias about behavior of others, what was seen as sign of rejection or criticism, intensifying the stress. However, it is possible that the stress levels seen in people with HIV already exist since childhood. Thus, health actions aimed at reducing stress among

PLWH may find success through patient awareness to the inherent characteristics of their attachment styles. An example of a way to reduce stress would be changing interpretation of the social distance, looking at this less negatively and finding it as opportunities to rely more on personal value rather than understand it as rejection signal<sup>10</sup>.

Dealing with afflictions and adaptation to stressors are crucial factors to adjustment to HIV. It was used the measure of positive state of mind to assess adjust to HIV and it was found that this adaptation is linked to secure attachment, social support related to HIV and engaged behavior. Authors believe that psychological interventions to improve quality of life of PLWH can be effective if it includes interpersonal functioning of individuals with regard to attachment, coping and social support<sup>11</sup>.

People with HIV and who are also insecure, when exposed to stressors often demonstrate difficulties to adapt behaviors, low resilience and vulnerability to emotional problems<sup>8</sup>. Moreover, persons exhibiting secure attachment presented less stress and depression than the three Insecure groups. People securely attached have fewer anxieties about their illness, less perceive stigma and less negative self-image. The study also talks about the benefits of therapies focused on attachment, as couple therapy, in order to improve the well-being and reduce the progression of HIV. Likewise, high anxiety and insecure attachments are related to symptoms of post-traumatic stress disorders, indicating a relationship between attachment style and mental health in adulthood<sup>6</sup>.

Social support appears as a mediator to increase attachment security<sup>9,11</sup>.

The exposure of individuals to traumatic experiences is related to the great chances of behaviors that increase the likelihood of HIV transmission<sup>6</sup>. People living with HIV/AIDS insecurely attached has greater perceived stress rates, and this stress is compounded of difficulties adjusting to the disease, resulting in increased vulnerability, identified by more depressive symptoms, stress and general behavior problems. Forms of insecure attachment in PLWH is a vulnerability factor also for development of depressive traits, which should justify special attention towards them. This author has found that attachment style accounts for 20% of the variation in distress in PLWH. On the other hand, positive state of mind has strong relation with secure attachment style, reducing stress, depression and perceived stigma<sup>9</sup>.

Thus, there are several therapeutic benefits of an HIV treatment also focused on attachment style. The advantages include since reducing stress improvement in prognosis to improvement in overall quality of life<sup>6,8,10,11</sup>.

Only four articles<sup>6,7,10,11</sup> differentiated patients only infected from those with AIDS. No difference was found in perceived stress among people who have developed AIDS. However, the presence of AIDS was related to the reduction in the number of support figures or change in the profile of these contacts<sup>10,11</sup>.

The majority of PLWH still engage in risky sexual behavior. It has been noticed that people with positive internal working models of self has fewer casual sex partners and fewer partners without HIV therefore at risk of contamination. But those with Fearful attachment type showed a significant number of sexual partners. Anxiety was a strong predictor in order to have partners at risk for contamination. Therefore, attachment pattern is a relevant factor for the study of interpersonal risk behavior in PLWH, especially in the investigation of those who continue to engage in sexual risk activity after disclose of diagnosis. Understanding the reasons why individuals are exposed to risky sexual practices is essential to fight HIV, helping to increase the effectiveness of interventions in this population<sup>7</sup>.

Unprotected anal sex practices were related to the seriousness of interpersonal connections<sup>15</sup>. The attachment style is related to the quality of relationships, as well as some aspects of sexual activity, such as sex frequency. The author mentions that the challenges faced by homosexual

couples in maintaining their relationships can contribute to the development of problems in the security of their attachment styles. The study found that anxious and ambivalent men, as well as those with anxious partners had significantly lower scores in sexual communication. Having anxious or ambivalent partner was related to less sex frequency in relationships.

Compared to those secure attached, anxious and avoidant had significantly more casual partners for unprotected anal intercourse, with avoidant overcoming anxious. This relationship was similar regarding partners attachment. People with avoidant attachment style had 31.5 times more casual sex partners for unprotected anal sex compared with those securely attached. It was identified a relationship between insecure attachment of Preoccupied and Fearful types and infidelity in relationships. It is observed that attachment security is crucial to quality of relationships and to reduce vulnerability to HIV<sup>19</sup>.

Attachment was related to psychological and behavioral consequences among PLWH<sup>6</sup>. Differences were found between attachment of homosexuals and heterosexuals persons. Heterosexuals were more likely to be Secure or Fearful and less likely to be Dismissing or Preoccupied, while homosexuals were more likely to be Preoccupied and less likely to be Secure<sup>8</sup>. Bisexuals were more likely to be Dismissing and less likely to be Secure or Fearful. Many behavioral disorders attributed to people with insecure attachment develop as consequence of the assumption that the other is not worthy of care or that other will not be available in times of need<sup>9</sup>.

About attachment, quality of life and medical adherence, people who adhere to antiretroviral therapy (ART) exhibit less concerns with relationships, yet when made multiple comparisons by gender, this feature was only related to women<sup>12</sup>. Non-adherent women demonstrated greater concern about negative feedback and rejection. In addition, fear of being left or neglected and the constant need for approval may reduce the attention paid to therapy. Thus, strategies to increase adherence to ART in women can benefit from the research of the dynamics of interpersonal relationships.

Quality of life was investigated based on physical functioning, pain and forgiveness<sup>13</sup>. Physical functioning had 21% of the variation explained by the anxiety of attachment. Anxiety was inversely related to physical functioning and pain, this feature was also negatively related to the ability to forgive. Forgiveness of others in anxious

individuals was related to greater pain and forgiveness of self-increased the perception of health.

Last category was attachment as a changeable trait. Attachment style may change with time, although it is relatively stable. Interventions to develop adaptive coping skills and focus on the causes of attachment formation can be particularly effective in reducing symptoms related to trauma in PLWH<sup>6</sup>. Similarly, it is unclear whether adult attachment style changes in response to HIV diagnosis or insecurity already existed before the infection and characterize a group of individuals who are more likely to be infected<sup>8</sup>.

It was evident that the group under domestic violence, has high risk of having problems in attachment security. Psychotherapy focusing on the development of security in adults proved to be fundamental in changing lives and maintaining emotional stability of these people<sup>14</sup>.

## Conclusions

The literature relating to attachment patterns in PLWH although still insufficient and recent presents several aspects regarding these two variables. It was possible to categorize the studies found, describing the main variables involved in this issue. The prevalence of insecure attachment in PLWH may be higher than in the general population. Evidence was also found in relation to the attachment as an important factor to adaptation to the diagnosis of HIV, behavior in interpersonal rela-

tionships and the possibility of development of attachment security. However, more careful studies are needed to confirm the findings.

The articles found confirm the hypothesis that insecure attachment is a vulnerability factor for PLWH, especially in face of negative internal working models of self and others. Changing insecure attachment styles for Secure can result in better adaptation to life with a stigmatizing chronic disease such HIV, reduction in risky behavior and improving quality of life of this population.

Monitoring PLWH should take into account their attachment styles, especially as refers to awareness of these individuals to understand their own attachment type, and later self-analysis of their actions, as well as through offering greater support social, which contribute to security of attachment. Therefore, the importance of evaluating the attachment style in the first PLWH follow-up consultation, as a way of expanding care.

## Key Considerations

The reduced number of publications as well as the type of design were some of the limiting factors of this study. It was not possible to proceed a meta analysis study since the majority of research found were no experimental, cross-sectional surveys. It is suggested the development of experimental studies in this subject and research which also address the reality of developing countries.



## Collaborations

OO Farias, contributed with the conceptualization of the research, idea and formulation of aims. Contributed on the analysis and synthesis of study data. Conduced a research and investigation process, specifically performing data collection. Developed the methodology. Responsible for the research activity planning and execution. Verification of the overall replication of results and other research outputs. Preparation of the work for publication. HO Alexandre, contributed with the overarching research goals. Contributed on the analysis and synthesis of study data. Supported research and investigation process during data collection. Contributed to the development of the methodology. Oriented research planning and execution. Verification of the overall replication of results and other research outputs. Preparation of the work for publication. ICV Lima, contributed on the analysis and synthesis of study data. Supported research and investigation process, during data collection. Oriented the development of the methodology. Verification of the overall replication of results and other research outputs. MTG Galvão, oriented research and investigation process. Oriented the development of the methodology. Oriented research planning and execution. Verification of the overall replication of results and other research outputs. Preparation of the work for publication. R Hanley-Dafoe, contributed to the preparation of the work, writing part of the original draft, revising the research for publication. VF Santos, contributed drafting the article, revising it critically and in the approval of the version to be published.

## References

1. Bowlby J. *Apego: a natureza do vínculo*. São Paulo: Martins Fontes; 2002.
2. Vrtička P, Sander D, Vuilleumier P. Influence of adult attachment style on the perception of social and non-social emotional scenes. *J Soc Pers Relat* 2012; 29(4):530-544.
3. Collins NL, Feeney BC. A Safe Haven: An Attachment Theory Perspective on Support Seeking and Caregiving in Intimate Relationships. *J Pers Soc Psychol* 2000; 78(6):1053-1073.
4. Schumann LR, Moura LBA. Vulnerability synthetic indices: an integrative literature re-view. *Cien Saude Colet* 2015; 20(7):2105-2120.
5. Izumi LY, Bertolozzi MR, Takahashi RF, Fraccolli LA. The use of the "vulnerability" concept in the nursing area. *Lat Am J Aquat Res* 2008; 16(5):923-928.
6. Gore-Felton C, Ginzburg K, Chartier M, Gardner W, Agnew-Blais J, McGarvey E, Weiss E, Koopman C. Attachment style and coping in relation to posttraumatic stress disorder Symptoms Among adults living with HIV/AIDS. *J Behav Med* 2013; 36(1):51-60.
7. Ciesla J, Robert JE, Hewitt RG. Adult Attachment and High-Risk Sexual Behavior Among HIV-Positive Patients. *J Appl Soc Psychol* 2004; 34(1):108-124.
8. Riggs SA, Vosvick M, Stallings S. Attachment style, stigma and psychological distress Among HIV plus adults. *J Health Psychol* 2007; 12(6):922-936.
9. Hinnen C, Schreuder I, Jong E, van Duijn M, Dahmen R, van Gorp EC. The contribution of adult attachment and social perceived support to depressive Symptoms in Patients with HIV. *AIDS Care* 2012; 24(12):1535-1542.
10. Koopman C, Gore-Felton C, Marouf F, Butler DL, Field N, Gill M, Chen XH, Israelski D, Spiegel D. Relationships of perceived stress to coping, social support attachment and Among HIV-positive persons. *AIDS Care* 2000; 12(5):663-672.
11. Turner-Cobb JM, Gore-Felton C, Marouf F, Koopman C, Kim P, Israelski D, Spiegel D. Coping, Social Support, and Attachment Style the Psychosocial Correlates of Adjustment in Men and Women with HIV/AIDS. *J Behav Med* 2002; 25(4):337-353.
12. Ubbiali A, Donati D, Chiorri C, Bregani V, Cattaneo E, Maffei C, Visintini R. Prediction of adherence to antiretroviral therapy: Patients can 'gender play some role? An Italian pilot study. *AIDS Care* 2008; 20(5):571-575.
13. Martin LA, Vosvick M, Riggs SA. Attachment, forgiveness, and physical health quality of life in HIV adults. *AIDS Care* 2012; 24(11):1333-1340.
14. Davis KB. Understanding and addressing stigma and attachment insecurity in HIV-positive women who experience intimate partner violence: a model of medical and psycho-social care. *Soc Work Health Care* 2012; 51(3):213-231.
15. Starks TJ, Parsons JT. Adult attachment among partnered gay men: patterns and associations with sexual relationship quality. *Arch Sex Behav* 2014; 43(1):107-117.

16. Wiltgen A, Adler H, Smith R , Rufino K, Frazier C, Shepard C, Booker K, Simmons D, Richardson G, Allen UG, Fowler JC. Attachment insecurity and obsessive-compulsive per-sonality disorder among inpatients with serious mental illness. *J Affect Disord* 2015; 174:411-415.
17. Maunder RG, Hunter JJ. Assessing patterns of adult attachment in medical patients. *Gen Hosp Psychiatry* 2009; 31(2):123-128.
18. Mikulincer M, Shaver PR. An attachment and behavioral systems perspective on social support. *J Soc Pers Relatsh* 2009; 26(1):7-19.
19. Fish JN, Pavkov TW, Wetchler JL, Bercik J. Characteristics of those who participate in infidelity: the role of adult attachment and differentiation in extradyadic experiences. *Am J Fam There* 2012; 40(3):214-216.

---

Article submitted 14/09/2017

Approved 14/06/2018

Final version submitted 16/06/2018