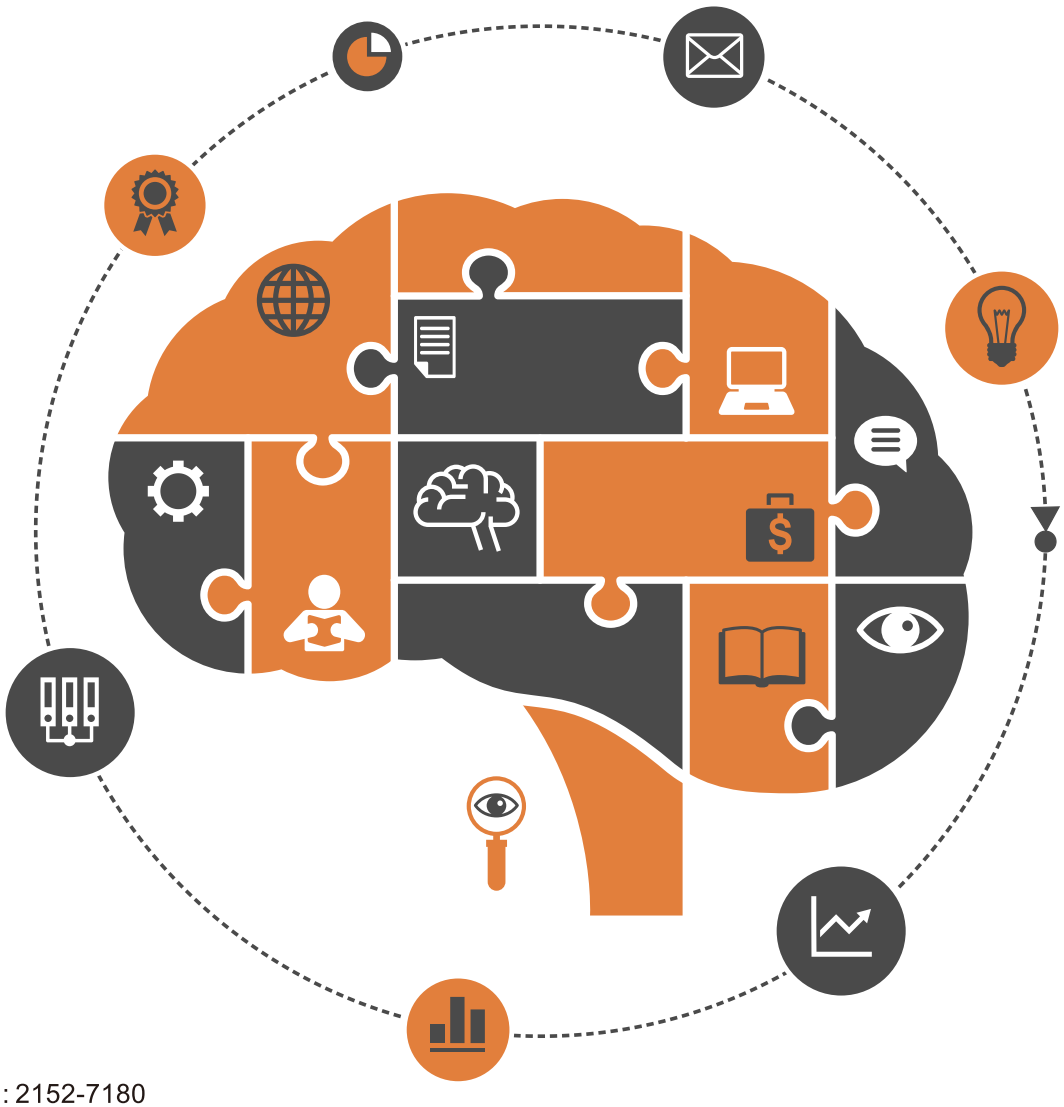
ISSN: 2152-7180 Volume 13, Number 11, October 2022

Scientific Research Publishing

Psychology



ISSN: 2152-7180

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ISSN Print: 2152-7180 ISSN Online: 2152-7199

https://www.scirp.org/journal/psych

Editorial Board

Scientific Research Publishing

Psychology, 2022, 13, 1553-1657
https://www.scirp.org/journal/psych
ISSN Online: 2152-7199
ISSN Print: 2152-7180

Table of Contents

Volume 13 Number 11 October 2022

Psychology (PSYCH)
Journal Information

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Table 1. Participants' mean scores on the eight personality dimensions of the HumanGuide test, regardless of gender (n = 63).

HumanGuide Factors	Average	DP	Min.	Max.
Sensitivity	5.13	2.13	0	9
Power	1.73	2.97	−4	7
Quality	4.06	2.64	−2	9
Exposure	−0.97	3.83	−8	7
Structure	2.94	3.15	−4	9
Imagination	1.71	3.13	−5	8
Stability	1.92	3.1	−4	9
Contacts	2.63	2.99	−5	9

which expresses the need to be in evidence and to meet other people's expectations, had the lowest mean score and the highest standard deviation, indicating that this factor presents high variability among participants.

The differences observed between the mean scores of female and male participants are not significant, except for the *imagination* factor which showed a significant difference in relation to sex [$t(61) = -2.784 < 0.07$], with males showing a mean score (M = 2.45) significantly higher than that of females (M = 0.24). The mean *imagination* factor scores of MSM participants (M = 2.93; SD = 2.782) was higher than that of MSW (M = 1.43; SD = 2.782), which in turn was higher than WSM (M = 0.24; SD = 2.869), presenting a statistically significant difference ($p < 0.01$). A single positive correlation was observed between the *quality* factor, which expresses sense of responsibility and care for life in general, and CD4+ T cells ($r = 0.297$; $p < 0.05$).

Significant positive correlations were observed at significance level ≤ 0.01 between the *contacts* factor, which expresses sociability and the need to communicate with people, the total score on the PSS-HIV and all the dimensions that make up this scale (Table 2).

Only one significant negative correlation at significance level ≤ 0.05 was observed between the HumanGuide *exposure* factor, which expresses the need to be in the limelight and gain social recognition, and the dimension *unsupportive relationships* in the SEA-ART (Table 3).

4. Discussion

Based on the data obtained from the participants' medical records, we found that 87% had undetectable viral load, and 30% of women had a viral load above the desirable level, while only 2% of men had this value. This result suggests that men are more aware of the importance of following treatment, and show a greater adherence to it.

Table 2. Pearson's correlation matrix between the dimensions of the HumanGuide test and the dimensions of the perceived social support scale in HIV (n = 63).

PPS-HIV		HumanGuide							
		SENS	POW	QUA	EXPO	STR	IMAG	STA	CONT
Total score	r	0.218	−0.05	0.058	0.126	−0.276*	−0.019	−0.284*	0.393**
	p	0.086	0.695	0.652	0.327	0.029	0.88	0.024	0.001
Esteem	r	0.171	−0.062	0.034	0.081	−0.258*	−0.012	−0.206	0.323**
	p	0.181	0.627	0.788	0.527	0.041	0.928	0.105	0.01
Self-development	r	0.159	−0.033	−0.008	0.155	−0.233	0.059	−0.290*	0.342**
	p	0.213	0.80	0.949	0.225	0.066	0.647	0.021	0.006
Belonging	r	0.277*	−0.041	0.124	0.06	−0.219	−0.139	−0.19	0.328*
	p	0.028	0.748	0.332	0.64	0.084	0.279	0.135	0.009

Abbreviations corresponding to the HumanGuide dimensions: SENS: Sensitivity; POW: Power; QUAL: Quality; EXPO: Exposure; STR: Structure; IMAG: Imagination; STA: Stability; CONT: Contacts. *$p < 0.05$; **$p < 0.01$.

Table 3. Spearman's Correlation between the SEA-ART Dimensions and the exposure factor of the HumanGuide test (n = 63).

Self-efficacy expectation scale for following antiretroviral treatment		Exposure
Environmental circumstances and medication regimen	r	−0.140
	p	0.281
Unsupportive relationships	r	−0.302*
	p	0.017
Negative emotional experiences and physical condition	r	−0.144
	p	0.268

*Correlation at 0.05 significance level (two-tailed).

The participants' years of living with HIV very close to the years of treatment, indicate that AIDS has become a chronic disease for them (Mayer et al., 2016; Teeraananchai et al., 2017; World Health Organization, 2015). Since more than 50% of the participants have been living with the virus for more than 15 years, this data is indicative that ART is a determinant of the participants' longevity. Changes in treatment regimen were not related to years of seropositivity, but the introduction of the "3-in-1" cocktail proved to be able to predict the number of drug changes with a large effect size. The decrease in the frequency of therapeutic regimen changes coincided with the strategy of simplifying ART from 2002, when there was a significant reduction and stabilization of the number of daily doses, aimed at improving adherence and reduction of the occurrence of adverse events, while preserving virological suppression (Brites, 2016; Moyle, 2002).

4.1. Perceived Social Support and Adherence

The correlations observed between the prognostic indicative scores on the HIV social support perception scale with the two biological markers of adherence were in accordance with the authors' indication (Cortes et al., 2014). Individuals with positive perceived social support tended to be more adherent to treatment, as cited in several prior studies (Berghoff et al., 2018; DiMatteo, 2004; Langebeek et al., 2014; Uchino et al., 1996). Perceived support constitutes an important mediating mechanism between adherence and treatment efficacy, to the extent that subjective conditions have an objective impact on health status. The results obtained with the Portuguese version of the scale of perceived social support in HIV, new in Brazil, were compatible with those presented by the authors (Cortes et al., 2014), pointing to its usefulness in predicting treatment adherence. Its reduced format with only 12 items allows its application to be fast and well-accepted by patients.

4.2. Self-efficacy Expectations and Adherence

The correlations observed between expected self-efficacy and biological markers of adherence indicated that when faced with negative experiences and emotions, patients tend to be less adherent. Emotional states, such as irritability and depressive states, can contribute to an individual's discontinuation of medication. Unsupportive relationships can also compromise self-efficacy expectation due to insecurity in social contacts and possible fear of being discriminated against, as highlighted by several authors (Langebeek et al., 2014; Santos et al., 2014; Shubber et al., 2016; Sweeney & Vanable, 2016; Swendeman et al., 2009; Turan et al., 2019). On the other hand, individuals with good expectation of self-efficacy to follow treatment tend to take the medication even when facing negative experiences and feelings, encountering unfavorable environmental circumstances, and/or finding it difficult to ingest the medication. When there is a fear that one's HIV-positive status will be revealed, and when the individual is away from home at the time of taking their medication, there is a risk of decreased self-efficacy expectation, with an impact on adherence. Considering that the self-efficacy scores of adherent participants were higher than the scores of non-adherent participants, these results coincided with those obtained in previous studies (Drachler et al., 2016), indicating that the strength of expectation varies according to the anticipated risk by the patient of not taking the medication, depending on the situation.

4.3. Personality Differences among Participants

Regarding the personality characteristics of the participants, there were no significant differences in the mean scores of the HumanGuide factors between the genders, except for the *imagination* factor, which was much higher in male participants compared to females. Since most of the male participants have sex with men (MSM), when we analyzed the differences in the score of this factor consi-

dering the sexual orientation of the participants, we found that MSM differed significantly from women in this aspect. The need for expansion, to be everything, underlying the *imagination* factor (Welter, 2011; Welter & Capitão, 2007), may motivate the individual to wish to go beyond the social boundaries associated with gender to seek new experiences, with curiosity and an attraction to the unknown. This is an interesting and unexpected finding, yet in line with the Szondian theoretical assumptions that underpin the HumanGuide.

4.4. Personality and Psychological Adherence Mediators

Regarding the direct influence of personality traits on adherence, it was found that high scores on the HumanGuide *quality* factor, which expresses the sense of responsibility and care for life in general (Welter, 2011; Welter & Capitão, 2007), can positively influence ART adherence behavior, reflected in increased CD4+ T cell counts. This result suggests that caring for life in general, and for one's own life is associated with self-care, which in turn favors adherence to treatment for chronic diseases, as cited by some authors and bulletins (Brazilian Ministry of Health, 2018; Camargo-Borges & Japur, 2008; Swendeman et al., 2009; Webber et al., 2013; World Health Organization, 2015).

The results obtained through the significant correlations found between the HumanGuide and the PSS-HIV indicate that perceived social support can be influenced by personality. Individuals with a greater need to be with people and communicate intensely with them (accentuation of the *contacts* factor), tend to build a network of relationships which they can turn to in times of need. This behavior contributes to a positive perception of social support, especially in relation to feelings of esteem, as pointed out by Allemand et al. (2015) and Pierce et al. (1997). The need to establish close contacts with people, which allow to satisfy affective needs (accentuation of the *sensitivity* factor), favors the positive perception of social support associated with the feeling of belonging. Individuals who are more flexible and open to the new (depletion of the *structure* and *stability* factors), presented a better perceived social support, probably because they feel less self-sufficient and are less critical and attached to their own routine and the way they do things. On the other hand, individuals with a need for control and a tendency for rigidity (accentuated *structure* and *stability factors*), presented a negative perceived social support, possibly due to their critical sense and desire for things to be their way. This result is in line with the observations of Uchino et al. (1996) who stated that certain personality traits influence social behavior, and Allemand et al. (2015) who stated that there is a reciprocal relationship between personality traits and social support, since the individual may be able to actively build a supportive social network (Pierce et al., 1997). Adherence behavior, in turn, may also influence the provision of support by individuals, as pointed out by DiMatteo (2004), as they tend to devote more attention and care to those who match the care and attention received through adherence and self-care. In addition, perceived social support appears to be associated with

motivational selectivity (VandenBos, 2009) and may be influenced by psychological motives (Szondi, 2013).

Participants' personality differences in relation to self-efficacy expectation to follow ART were most evident in relation to the polar factors *stability* and *contacts* and *sensitivity* and *power* in the HumanGuide (Welter, 2011). The need to retain and conserve, as expressed through the tendency toward conservatism, cultivation of habits and attachment to routine, seem to contribute positively to the feeling of being able to follow treatment in adverse environmental circumstances, such as being on the street and facing changes in the rhythm of life, such as on weekends and holidays, or when experiencing negative emotional states, such as boredom and melancholy. Aspects related to the need to meet people and communicate with them may represent an obstacle to follow the treatment in situations of greater social interaction, such as being on the street and away from home, which favor dispersion and forgetfulness. Impatience may favor non-adherence to treatment because of the resistance to having to interrupt one's daily routine to take the medication several times a day.

The negative correlation between the dimension *non-supportive relationships*, which covers situations that pose a risk of not taking the medication because they are associated with the AIDS stigma (discrimination, insecurity in front of people you do not know, concealment of the HIV-positive status, questioning the importance of treatment and instability in the doctor-patient bond) and the HumanGuide factor *exposure*, suggests that the feeling of shame and the need to convey a more positive self-image can decrease the self-efficacy expectation. This result is consistent with the surveyed literature (Sweeney & Vanable, 2016; Turan et al., 2019) and the theoretical assumptions of the HumanGuide (Szondi, 1972; Welter, 2011).

5. Conclusion

Considering that adherence to ART determines treatment efficacy and contributes to the prevention of comorbidities, understanding the factors that influence it, including psychological mediators, is especially important. The results of this study suggest that the psychological mediators of adherence to treatment, perception of social support and expectation of self-efficacy, have an impact on adherence to ART. Furthermore, personality characteristics such as sociability, optimism, willingness to deal with change, flexibility, and need for acceptance and recognition may influence the psychological mediators. Personality traits related to sense of responsibility and self-care can also have an impact on the adherence to ART.

The relative scarcity of instruments to evaluate personality in the health field increases the possibilities of psychologists' work in this context, seeking to understand the motivational determinants of adherence to ART—a fundamental condition for the quality of life and longevity of patients with HIV. Since the sample of this study is small and of convenience, and the influence of personality

was addressed only on certain psychological aspects associated with ART adherence, the results obtained here cannot be generalized. Moreover, the cross-sectional nature of this study precludes any causal inferences from the results. However, it is reasonable to argue that personality is an aspect to be considered when addressing adherence to ART.

Acknowledgements

The authors thank Dr. Claudio Garcia Capitão for his critical revision of this paper.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

Allemand, M., Schaffhuser, K., & Martin, M. (2015). Long-Term Correlated Change between Personality Traits and Perceived Social Support in Middle Adulthood. *Personality and Social Psychology Bulletin, 41,* 420-432. https://doi.org/10.1177/0146167215569492

Aronson, J. K. (2007). Compliance, Concordance, Adherence. *British Journal of Clinical Pharmacology, 63,* 383-384. https://doi.org/10.1111/j.1365-2125.2007.02893.x

Bandura, A. (1977). Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review, 84,* 191-125. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1990). Perceived Self-Efficacy in the Exercise of Control over AIDS Infection. *Evaluation and Program Planning, 13,* 9-17. https://doi.org/10.1016/0149-7189(90)90004-G

Bandura, A. (2004). Health Promotion by Social Cognitive Means. *Health Education & Behavior, 31,* 143-164. https://doi.org/10.1177/1090198104263660

Bartram, D., Berberoglu, G., Grégoire, J., Hambleton, R., Muniz, J., & van de Vijver, F. (2018). ITC Guidelines for Translating and Adapting Tests (Second Edition). *International Journal of Testing, 18,* 101-134. https://doi.org/10.1080/15305058.2017.1398166

Berghoff, C. R., Gratz, K. L., Portz, K. J., Pinkston, M., Naifeh, J. A., Evans, S. D., Konkle-Parker, D. J., & Tull, M. T. (2018). The Role of Emotional Avoidance, the Patient-Provider Relationship, and Other Social Support in ART Adherence for HIV+ Individuals. *AIDS and Behavior, 22,* 929-938. https://doi.org/10.1007/s10461-017-1745-2

Bonolo, P. D. F., Gomes, R. R. D. M., & Guimarães, M. D. C. (2007). Adherence to Antiretroviral Therapy (HIV/AIDS): Associated Factors and Measures of Adherence. *Epidemiology and Health Services, 16,* 267-278.

Brazilian Ministry of Health (2015). *Boletim Epidemiológico HIV/Aids-2015*. 1-5.

Brazilian Ministry of Health (2018). *Protocolo Clínico e Diretrizes Terapêuticas para Manejo da Infecção pelo HIV Em Adultos*. https://www.gov.br/aids/pt-br/centrais-de-conteudo/pcdts/2013/hiv-aids/pcdt_manejo_adulto_12_2018_web.pdf/view

Brites, C. (2016). Switching Strategies in Current Antiretroviral Therapy. *The Brazilian Journal of Infectious Diseases, 2,* 24-32. http://www.bjid.org.br/en-estrategias-troca-switch-na-terapia-articulo-X2177511716525069

Camargo-Borges, C., & Japur, M. (2008). On Treatment (Non)Adherence: Expanding Meanings of Self-Care. *Texto e Contexto - Enfermagem, 17,* 64-71. https://doi.org/10.1590/S0104-07072008000100007

Camargo, L. A. (2012). *Association between Expectation of Self-Efficacy, Family Support, Indications of Mental Disorders and Adherence to Antiretroviral Treatment in Patients with HIV and AIDS.* Unpublished Master's Thesis, Coordenadoria de Controle de Doenças da Secretaria de Estado da Saúde de São Paulo.

Camargo, L. A., Capitão, C. G., & Filipe, E. M. V. (2014). Mental Health, Family Support, and Treatment Adherence: Associations in the HIV/AIDS context. *Psycho-USF, 19,* 221-232. https://doi.org/10.1590/1413-82712014019002013

Carvalho, P. P., Barroso, S. M., Coelho, H. C., & Penaforte, F. (2019). Factors Associated with Antiretroviral Therapy Adherence in Adults: An Integrative Review of Literature. *Science & Collective Health, 24,* 2543-2555. https://doi.org/10.1590/1413-81232018247.22312017

Chesney, M. (2003). Adherence to HAART Regimens. *AIDS Patient Care and STDs, 17,* 169-177. https://doi.org/10.1089/108729103321619773

Cohen, M. S., Chen, Y. Q., McCauley, M., Gamble, T., Hosseinipour, M. C., Kumarasamy, N. et al. (2016). Antiretroviral Therapy for the Prevention of HIV-1 Transmission. *New England Journal of Medicine, 375,* 830-839. https://doi.org/10.1056/NEJMoa1600693

Conn, V. S., Ruppar, T. M., Enriquez, M., & Cooper, P. (2016). Medication Adherence Interventions that Target Subjects with Adherence Problems: Systematic Review and Meta-Analysis. *Research in Social & Administrative Pharmacy (RSAP), 12,* 218-246. https://doi.org/10.1016/j.sapharm.2015.06.001

Cortes, A., Hunt, N., & McHale, S. (2014). Development of the Scale of Perceived Social Support in HIV (PSS-HIV). *AIDS and Behavior, 18,* 2274-2284. https://doi.org/10.1007/s10461-014-0902-0

Costa, L. M. C. B. V., Casseb, J. S. do R., Gascon, M. R. P., & Fonseca, L. A. M. (2018). Personality Characteristics and Treatment Adherence in young HIV patients. *Journal of SBPH, 21,* 6-35. http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1516-08582018000100002&lng=pt&tlng=pt

da Silva, S. R., & de Oliveira, R. A. (2017). *Ethics and HIV/AIDS—An Epidemic That Sustains Itself.* Regional Council of Medicine of the State of São Paulo.

de Carvalho Leite, J. C., de Lourdes Drachler, M., Centeno, M. O., Pinheiro, C. A. T., & da Silveira, V. L. (2002). Development of a Self-Efficacy Scale for Adherence to Antiretroviral Treatment. *Psicologia: Reflexão e Crítica, 15,* 121-133.

de Freitas, G. M., Lavezzo, F., Domingos, N. A. M., Seidl, E. M. F., & de Oliveira Santos Miyazaki, M. C. (2021). Psychosocial Variables and Adherence to Antiretroviral Treatment for HIV/AIDS. *Revista Psicologia e Saúde, 12,* 191-206.

DiMatteo, M. R. (2004). Social Support and Patient Adherence to medical Treatment: A Meta-Analysis. *Health psychology, 23,* 207-218. https://doi.org/10.1037/0278-6133.23.2.207

Drachler, M. D. L., Drachler, C. W., Teixeira, L. B., & de Carvalho Leite, J. C. (2016). The Scale of Self-Efficacy Expectations of Adherence to Antiretroviral Treatment: A Tool for Identifying Risk for Non-Adherence to Treatment for HIV. *PLOS ONE, 11,* e0147443. https://doi.org/10.1371/journal.pone.0147443

García, P. R., & Côté, J. K. (2003). Factors Affecting Adherence to Antiretroviral Therapy in People Living with HIV/AIDS. *Journal of the Association of Nurses in AIDS Care, 14,* 37-45. https://doi.org/10.1177/1055329003252424

Guimarães, M. D. C., Carneiro, M., de Abreu, D. M. X., & França, E. B. (2017). HIV/AIDS Mortality in Brazil, 2000-2015: Reasons for Concern? *Brazilian Journal of Epidemiology, 20,* 182-190. https://doi.org/10.1590/1980-5497201700050015

Haberer, J. E., Sabin, L., Amico, K. R., Orrell, C., Galárraga, O., Tsai, A. C. et al. (2017). Improving Antiretroviral Therapy Adherence in Resource-Limited Settings at Scale: A Discussion of Interventions and Recommendations. *Journal of the International AIDS Society, 20,* Article ID: 21371. https://doi.org/10.7448/IAS.20.1.21371

Holtzman, C. W., Shea, J. A., Glanz, K., Jacobs, L. M., Gross, R., Hines, J., Mounzer, K., Samuel, R., Metlay, J. P., & Yehia, B. R. (2015). Mapping Patient-Identified Barriers and Facilitators to Retention in HIV Care and Antiretroviral Therapy Adherence to Andersen's Behavioral Model. *AIDS Care, 27,* 817-828. https://doi.org/10.1080/09540121.2015.1009362

Jansen, R. (2017, December 16). *Distribution of Anti-HIV Drug Begins This Month*. O Estado de São Paulo. https://brasil.estadao.com.br/noticias/geral,distribuicao-de-droga-anti-hiv-comeca-este-mes,70002122736

Kanters, S., Park, J. J. H., Chan, K., Socias, M. E., Ford, N., Forrest, J. I., Thorlund, K., Nachega, J. B., & Mills, E. J. (2017). Interventions to Improve Adherence to Antiretroviral Therapy: A Systematic Review and Network Meta-Analysis. *The Lancet HIV, 4,* e31-e40. https://doi.org/10.1016/S2352-3018(16)30206-5

Langebeek, N., Gisolf, E. H., Reiss, P., Vervoort, S. C., Hafsteinsdóttir, T. B., Richter, C., Sprangers, M., & Nieuwkerk, P. T. (2014). Predictors and Correlates of Adherence to Combination Antiretroviral Therapy (ART) for Chronic HIV Infection: A Meta-Analysis. *BMC Medicine, 12,* Article No. 142. https://doi.org/10.1186/s12916-014-0142-1

Ma, Q., Tso, L. S., Rich, Z. C., Hall, B. J., Beanland, R., Li, H., Lackey, M., Hu, F., Cai, W., Doherty, M., & Tucker, J. D. (2016). Barriers and Facilitators of Interventions for Improving Antiretroviral Therapy Adherence: A Systematic Review of Global Qualitative Evidence. *Journal of the International AIDS Society, 19,* Article ID: 21166. https://doi.org/10.7448/IAS.19.1.21166

Mayer, K. H., Shisana, O., & Beyrer, C. (2016). AIDS 2016: From Aspiration to Implementation. *The Lancet, 387,* 2484-2485. https://doi.org/10.1016/S0140-6736(16)30621-3

Mbuagbaw, L., Sivaramalingam, B., Navarro, T., Hobson, N., Keepanasseril, A., Wilczynski, N. J., Haynes, R. B., & Patient Adherence Review (PAR) Team. (2015). Interventions for Enhancing Adherence to Antiretroviral Therapy (ART): A Systematic Review of High Quality Studies. *AIDS Patient Care and STDs, 29,* 248-266. https://doi.org/10.1089/apc.2014.0308

Mills, E. J., Nachega, J. B., Bangsberg, D. R., Singh, S., Rachlis, B., Wu, P., Wilson, K., Buchan, I., Gill, C. J., & Cooper, C. (2006). Adherence to HAART: A Systematic Review of Developed and Developing Nation Patient-Reported Barriers and Facilitators. *PLOS Medicine, 3,* e438. https://doi.org/10.1371/journal.pmed.0030438

Moyle, G. (2002). The Dawning of the Once-a-Day Era. *Current Opinion in Infectious Diseases, 5,* 1. https://doi.org/10.1097/00001432-200202000-00001

Mueller, S., Wilke, T., Gorasso, V., Erhart, M., & Kittner, J. M. (2018). Adaption and Validation of the Adherence Barriers Questionnaire for HIV Patients on Antiretroviral Therapy (ABQ-HIV). *BMC Infectious Diseases, 18,* Article No. 599. https://doi.org/10.1186/s12879-018-3530-x

Munro, S., Lewin, S., Swart, T., & Volmink, J. (2007). A Review of Health Behavior Theories: How Useful Are These for Developing Interventions to Promote Long-Term

Medication Adherence for TB and HIV/AIDS? *BMC Public Health, 7,* Article No. 104. https://doi.org/10.1186/1471-2458-7-104

Nachega, J. B., Adetokunboh, O., Uthman, O. A., Knowlton, A. W., Altice, F. L., Schechter, M., Galárraga, O., Geng, E., Peltzer, K., Chang, L. W., van Cutsem, G., Jaffar, S. S., Ford, N., Mellins, C. A., Remien, R. H., & Mills, E. J. (2016). Community-Based Interventions to Improve and Sustain Antiretroviral Therapy Adherence, Retention in HIV Care and Clinical Outcomes in Low- and Middle-Income Countries for Achieving the UNAIDS 90-90-90 Targets. *Current HIV/AIDS Reports, 13,* 241-255. https://doi.org/10.1007/s11904-016-0325-9

Peng, S. (2020). Maslow's Hierarchy of Needs Theory Combined with Subjective Well-Being to Explore the Influencing factors and Promotion Strategies. *Research & Development, 1,* 19-24.

Penn, A. W., Azman, H., Horvath, H., Taylor, K. D., Hickey, M. D., Rajan, J., Negussie, E. K., Doherty, M., & Rutherford, G. W. (2018). Supportive Interventions to Improve Retention on ART in People with HIV in Low- and Middle-Income Countries: A Systematic Review. *PLOS ONE, 13,* e0208814. https://doi.org/10.1371/journal.pone.0208814

Pierce, G. R., Lakey, B., Sarason, I. G., Sarason, B. R., & Joseph, H. J. (1997). Personality and Social Support Processes. In G. R. Pierce, B. Lakey, I. G. Sarason, & B. R. Sarason (Eds.), *Sourcebook of Social Support and Personality* (pp. 3-18). The Springer. https://doi.org/10.1007/978-1-4899-1843-7_1

Pinheiro, C. A. T., de-Carvalho-Leite, J. C., Drachler, M. L., & Silveira, V. L. (2002). Factors Associated with Adherence to Antiretroviral Therapy in HIV/AIDS Patients: A Cross-Sectional Study in Southern Brazil. *Brazilian Journal of Medical and Biological Research, 35,* 1173-1181. https://doi.org/10.1590/S0100-879X2002001000010

Polejack, L., & Seidl, E. M. F. (2010). Monitoring and Evaluation of Adherence to Antiretroviral Treatment for HIV/AIDS: Challenges and Possibilities. *Science & Collective Health, 15,* 1201-1208. https://doi.org/10.1590/S1413-81232010000700029

Ridgeway, K., Dulli, L. S., Murray, K. R., Silverstein, H., Dal Santo, L., Olsen, P., Darrow de Mora, D., & McCarraher, D. R. (2018). Interventions to Improve Antiretroviral Therapy Adherence among Adolescents in Low- and Middle-Income Countries: A Systematic Review of the Literature. *PLOS ONE, 13,* e0189770. https://doi.org/10.1371/journal.pone.0189770

Santos, É. E. P. dos, de Mello Padoin, S. M., Spiegelberg Zuge, S., Vargas Schwarzbold, A., de Souza Magnago, T. S. B., & Cardoso de Paula, C. (2014). Expectations of Self-Efficacy for the Aids Treatment of Adults in a University Hospital. *Revista de Enfermagem UFPE, 8,* 2797-2804. https://periodicos.ufpe.br/revistas/revistaenfermagem/article/viewFile/9986/10335

Seidl, E. M. F., Melchíades, A., Farias, V., & Brito, A. (2007). People Living with HIV/AIDS: Variables Associated with Adherence to Antiretroviral Treatment. *Cadernos de Saúde Pública, 23,* 2305-2316. https://doi.org/10.1590/S0102-311X2007001000006

Shubber, Z., Mills, E. J., Nachega, J. B., Vreeman, R., Freitas, M., Bock, P., Nsanzimana, S., Penazzato, M., Appolo, T., Doherty, M., & Ford, N. (2016). Patient-Reported Barriers to Adherence to Antiretroviral Therapy: A Systematic Review and Meta-Analysis. *PLOS Medicine, 13,* e1002183. https://doi.org/10.1371/journal.pmed.1002183

Soto, C. J., & Jackson, J. J. (2013). Five-Factor Model of Personality. *Journal of Research in Personality, 42,* 1285-1302. https://doi.org/10.1093/obo/9780199828340-0120

Straub, R. O. (2014). *Health Psychology: A Biopsychosocial Approach*. Worth Publishers.

Sweeney, S. M., & Vanable, P.A. (2016). The Association of HIV-Related Stigma to HIV

Medication Adherence: A Systematic Review and Synthesis of the Literature. *AIDS Behavior, 20,* 29-50. https://doi.org/10.1007/s10461-015-1164-1

Swendeman, D., Ingram, B. L., & Rotheram-Borus, M. J. (2009). Common Elements in Self-Management of HIV and Other Chronic Illnesses: An Integrative Framework. *AIDS Care, 21,* 1321-1334. https://doi.org/10.1080/09540120902803158

Szondi, L. (1972). *Lehrbuch der experimentelle Triebdiagnostik - Textband* (3rd ed., Vol. 1). Hans Huber.

Szondi, L. (2013). *Introduction to the Psychology of Fate Followed by Marriage Analysis*. Is Accomplishments.

Teeraananchai, S., Kerr, S. J., Amin, J., Ruxrungtham, K., & Law, M. G. (2017). Life Expectancy of HIV-Positive People after Starting Combination Antiretroviral Therapy: A Meta-Analysis. *HIV Medicine, 18,* 256-266. https://doi.org/10.1111/hiv.12421

Turan, B., Crockett, K. B., Buyukcan-Tetik, A., Kempf, M. C., Konkle-Parker, D., Wilson, T. E., Tien, P. C., Wingood, G., Neilands, T. B., Johnson, M. O., Weiser, S. D., & Turan, J. M. (2019). Buffering Internalization of HIV Stigma: Implications for Treatment Adherence and Depression. *Journal of Acquired Immune Deficiency Syndromes, 80,* 284-291. https://doi.org/10.1097/QAI.0000000000001915

Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The Relationship between Social Support and Physiological Processes: A Review with Emphasis on Underlying Mechanisms and Implications for Health. *Psychological Bulletin, 119,* 488-531. https://doi.org/10.1037/0033-2909.119.3.488

VandenBos, G. R. (2009). *APA Dictionary of Psychology*. American Psychological Association. https://doi.org/10.2307/j.ctv1chs9c9

Waldvogel, B. C., Tayra, A., Domingues, C. S. B, Morias, L. C. C., Tancredi, M. V., La Porte Teixeira, M., & Polon, M. C. (2015). Living with AIDS in the State of São Paulo: Information and Challenges for Public Health Policy. *Bepa - Boletim Epidemiológico Paulista, 12,* 17-33. https://www.seade.gov.br/wp-content/uploads/2015/05/Primeira_Analise_n24.pdf

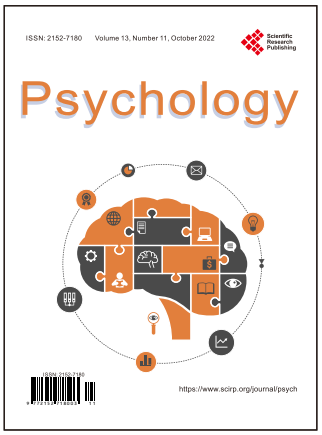
Webber, D., Guo, Z., & Mann, S. (2013). Self-Care in Health: We Can Define It, but Should We Also Measure It? *SelfCare Journal, 4,* 101-106. https://selfcarejournal.com/article/self-care-in-health-we-can-define-it-but-should-we-also-measure-it/

Welter, G. M. R, & Capitão, C. G. (2007). HumanGuide: Evidence of Validity of the Brazilian Version. *Psic: Revista da Vetor Editora, 8,* 139-150. http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1676-73142007000200004&lng=pt&tlng=pt

Welter, G. M. R. (2011). *HumanGuide - Perfil Pessoal* (Vol. 1). Vetor Editora Psicopedagógica.

World Health Organization (2015, September). *Guidelines on When to Start Antiretroviral Therapy and on Pre-Exposure Prophylaxis for HIV* (78 p). World Health Organization. http://apps.who.int/iris/bitstream/handle/10665/186275/9789241509565_eng.pdf?sequence=1

Wright, M. T. (2000). The Old Problem of Adherence: Research on Treatment Adherence and Its Relevance for HIV/AIDS. *AIDS Care, 12,* 703-710. https://doi.org/10.1080/09540120020014237



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