



Beyond HIV shame: the role of self-forgiveness and acceptance in living with HIV

Sebastian Binyamin Skalski-Bednarz, Loren L. Toussaint, Karol Konaszewski & Janusz Surzykiewicz

To cite this article: Sebastian Binyamin Skalski-Bednarz, Loren L. Toussaint, Karol Konaszewski & Janusz Surzykiewicz (26 Apr 2024): Beyond HIV shame: the role of self-forgiveness and acceptance in living with HIV, *AIDS Care*, DOI: [10.1080/09540121.2024.2343770](https://doi.org/10.1080/09540121.2024.2343770)

To link to this article: <https://doi.org/10.1080/09540121.2024.2343770>



© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 26 Apr 2024.



Submit your article to this journal [↗](#)







View related articles [↗](#)



View Crossmark data [↗](#)

Beyond HIV shame: the role of self-forgiveness and acceptance in living with HIV

Sebastian Binyamin Skalski-Bednarz ^{a,b}, Loren L. Toussaint ^c, Karol Konaszewski ^d and Janusz Surzykiewicz ^{a,e}

^aFaculty of Philosophy and Education, Katholische Universität Eichstätt-Ingolstadt, Eichstätt, Germany; ^bSchool of Human Sciences, University of Economics and Human Sciences in Warsaw, Warsaw, Poland; ^cDepartment of Psychology, Luther College, Decorah, IA, USA; ^dFaculty of Education, University of Białystok, Białystok, Poland; ^eFaculty of Education, Cardinal Stefan Wyszyński University in Warsaw, Warsaw, Poland

ABSTRACT

Research is developing regarding the beneficial association of spirituality with numerous health outcomes in people living with HIV (PLWH); however, little attention has been paid to the association of these variables with forgiveness and acceptance of HIV status. This cross-sectional study used a sample of 648 PLWH from the United States aged 18–61 to test the mediating effects of forgiveness and acceptance of HIV status on the relationship of spirituality and life satisfaction. As expected, self-forgiveness and acceptance straightforwardly and serially explained the links between spirituality and life satisfaction, while forgiveness of others was not a significant mediator for this relationship. The data obtained suggest that spirituality and self-forgiveness are two important targets for future experimental research, and therapeutic interventions on these variables may have a synergistic effect of increasing acceptance and improving well-being in PLWH.

ARTICLE HISTORY

Received 25 April 2023
Accepted 10 April 2024

KEYWORDS

Self-forgiveness; acceptance; life satisfaction; HIV; living with HIV

SUSTAINABLE

DEVELOPMENT GOALS

SDG 3: Good health and well-being

Introduction

There are approximately 39 million people living with HIV (PLWH) worldwide (WHO, 2024). With effective antiretroviral therapy, PLWH life expectancy is approaching the average life expectancy for the general population (Marcus et al., 2020). Although it is possible to live with HIV in good health for many years, and the infection is increasingly being compared to a chronic disease, it can still cause extreme stress for PLWH. In UK studies, more than half of people in one study found that being diagnosed with an HIV infection was a traumatic event (Theuninck et al., 2010). In a recent meta-analysis, Tang et al. (2020) estimated the global prevalence of post-traumatic stress disorder (PTSD) among PLWH at 28%. The experience of such intense trauma may have consequences for psychological functioning. The most common effects of the PLWH stress response include increased death anxiety, depressiveness, and lower life satisfaction (Dobrakowski & Skalski, 2019). Previous research also points to the limited acceptance of HIV status and the key role of this variable in shaping

well-being (Andrinopoulos et al., 2011; Earnshaw et al., 2013). Skalski et al. (2022) showed that acceptance might be the most significant predictor of life satisfaction in PLWH among all coping strategies proposed by Carver et al. (1989). In a study by Pérez et al. (2009), the association of spiritual striving and depression in PLWH was mediated by acceptance coping. The role of acceptance as a critical coping strategy in reducing the experience of a stress response is also emphasized by numerous stress theories (e.g., Cohen & Williamson, 1991; Lazarus & Folkman, 1984; Selye, 1946). The changing epidemiological picture and the prevalence of negative psychological effects in PLWH require social service providers to develop intervention approaches to increase acceptance of HIV status and improve psychological functioning in the face of crisis. In that regard, recent reports indicate that spirituality and self-forgiveness may be key resources for increasing adaptation (Arefpour et al., 2021; Byra et al., 2020; Hall et al., 2020).

In this intricate web of psychological impacts, the nuanced understanding of “stigma” and “shame”

CONTACT Sebastian Binyamin Skalski-Bednarz  Sebastian.Skalski@ku.de

© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

and their effects on PLWH becomes crucial. Stigma, characterized by societal discrimination against PLWH (Andersson et al., 2020), affects their social status and interactions, while shame – a deeply personal sense of guilt or disgrace tied to the HIV diagnosis – impacts self-perception and mental health (Bennett et al., 2016). Unlike stigma, which is fueled by external societal attitudes, shame is an internal reaction to perceived personal failure or societal judgment. This internal struggle highlights the importance of mechanisms like forgiveness and acceptance in combating the detrimental effects of shame and improving life satisfaction among PLWH. Bridging this gap, spirituality emerges as a pivotal element of an individual's functioning, intricately determining their relationship with the broader world and fostering a sense of belonging and hope (Fisher, 2010).

Spirituality is recognized as a key aspect of an individual's functioning that determines the relationship with the broader world (Fisher, 2010). According to the literature, spirituality encompasses aspects of religion, anxiety, hope, and a sense of belonging, constituting the purpose and meaning of individuals' lives (Cimete, 2002). Consequently, this means that spirituality is important in securing a person's psycho-physical health and supports healing processes (Coyle, 2002; Koenig, 2008). As per Ahmadi et al. (2015), spirituality may be a stronger predictor of illness acceptance and subjective well-being than religiosity. These findings correspond with previous research by Genia (2009) that higher spirituality scores were associated with lower depression severity and higher self-esteem; and findings of Mela et al. (2008) on a sample of Canadian forensic psychiatric patients, according to which spirituality was negatively related to death anxiety and depressive symptoms, yet more strongly positively associated with life satisfaction than religiosity. In studies on PLWH, higher levels of spirituality influenced intermediate variables related to positive adaptation and ultimately resulted in better mental and physical health (Kudel et al., 2011). These findings suggest that spirituality may be a critical determinant of HIV status acceptance and life satisfaction. Interestingly, some reports indicate that forgiveness may strengthen the relationship between these variables (e.g., Currier et al., 2016; Davis et al., 2012; Skalski-Bednarz & Toussaint, 2024).

In considering spirituality, some scholars encourage exploring this construct's complex, relational aspects rather than solely viewing spirituality as a simple and singular phenomenon. For example,

Davis et al. (2008) noted that spirituality initiates a relational association with forgiveness. The authors also showed that spiritual appraisals might predict unforgiveness, controlling for hurtfulness and other covariates (Davis et al., 2012). The theoretical foundation for this approach is shaped by the *forgiveness and relational spirituality model* (Sandage & Williamson, 2010), which provides a comprehensive framework for investigating how seeking forgiveness may act as a mediator between spirituality and health. This model, grounded in the fusion of forgiveness and spirituality within interpersonal relationships, underscores their mutual impact. It suggests that forgiveness is closely linked to an individual's spiritual convictions and relational encounters. In line with this model, spiritual beliefs and practices play a crucial role in facilitating forgiveness by imbuing conflicts with significance, direction, and counsel, thereby nurturing qualities like empathy, compassion, and reconciliation (Tsang et al., 2005). Furthermore, the construct of forgiveness is defined as a psychological-spiritual process in which a person's relationship with God or a spiritual guru plays a vital role (Lin et al., 2012), whether oriented towards oneself or others. According to previous research, individuals with a high tendency to forgive others may exhibit lower levels of depression, death anxiety, and stress and increased well-being than individuals with a lower tendency to forgive others (Kim et al., 2021; Lawler-Row et al., 2011; Long et al., 2020; Skalski-Bednarz & Toussaint, 2024; Webb & Toussaint, 2020; Worthington & Lamb, 2023). Wald and Temoshok (2004) found PLWH who rated themselves as forgiving of others reported fewer depressive symptoms and fewer current life stressors, and the stressors they reported were rated as being of lower severity. Toussaint et al. (2023) demonstrated that both self-forgiveness and forgiveness of others are significant predictors of health and happiness in this vulnerable population, with mediation analysis showing these relationships are fully mediated by perceived stress in PLWH. On the other hand, Tenklova and Slezackova (2016) noted that dispositional self-forgiveness correlates more closely with quality-of-life indicators than interpersonal forgiveness. Similar findings were observed in a recent study by Nkomo and Kufankomwe (2020), which highlighted self-forgiveness as a more resilient indicator of well-being among people living with HIV compared to forgiveness toward others. Self-forgiveness seems important when people perceive that they have done something that violates important personal values or moral norms and when they have done something against themselves (Webb

& Toussaint, 2017). Secondly, self-forgiveness becomes important when people feel distressed about their actions (Toussaint et al., 2017). A likely reason for such self-condemnation in the case of PLWH is due to the virus's nature and the transmission routes (most often, people are infected through sexual contact).

Self-forgiveness means acknowledging and taking responsibility for one's actions and seeking to restore oneself to the moral circle by acting to repair harm done (Strelan, 2017). Self-forgiveness is a process. One can only arrive at self-forgiveness by reflecting on one's actions and taking corrective action (Enright, 1996). Toussaint et al. (2017) developed a stress and coping model of self-forgiveness and health, which states that (1) self-condemnation is stressful; (2) self-forgiveness can be used to cope with the stressful effects of self-condemnation; and (3) self-forgiveness is related to health. Numerous empirical studies have supported the assumptions of Toussaint et al. (2017) (see Davis et al., 2015; Lee & Enright, 2019; Webb & Toussaint, 2018). In a study by Jain and Tiwari (2016), PLWH exhibited lower dispositional self-forgiveness rates than the control group (HIV-), and lower dispositional self-forgiveness was also associated with lower life satisfaction. Furthermore, self-forgiveness is the result of reflection, which leads to increased acceptance of the situation experienced (Toussaint et al., 2014). Thus, the relationship between spirituality and life satisfaction in PLWH may be serially mediated by dispositional self-forgiveness and acceptance.

Building on the existing literature, we posited that the link between spirituality and life satisfaction among people living with HIV (PLWH) could be elucidated by a series of changes in dispositional self-forgiveness (Mediator 1A) and acceptance of HIV status (Mediator 2). While the preponderance of research underscores the significance of self-forgiveness in promoting health outcomes in PLWH, there are also findings that highlight the (somewhat lesser) impact of forgiving others. Consequently, we incorporated this dimension into our model as an alternate pathway (Mediator 1B).

Material and methods

Participants and procedure

The study included 648 PLWH (252 women and 396 men) aged 18–61 ($M = 27.6$, $SD = 7.3$). The project was conducted in the summer of 2023 in the United States. The data were collected on the Google Forms

platform. Participation was anonymous and voluntary. The selection of the cohort was intentional (i.e., PLWH). The health condition of infected respondents and treatment did not constitute recruitment criteria. Information about the study was disseminated thanks to announcements at associations for the benefit of PLWH and in social media (e.g., groups for the PLWH on Facebook). Among the participants, 78% had been aware of the HIV infection for over two years, and 96% had been treated with antiretroviral therapy (ARV). A vast majority of the participants (90%) declared undetectable viremia. Moreover, in 87% of the participants, the CD4 cell count was above 350/ μ l, which may indicate a relatively good health condition (Kamya et al., 2021). The participants were diverse in terms of education (2% elementary 2% middle school 70% high school 3% vocational school 23% higher education), residency (16% small towns, 19% city up to 100,000 inhabitants, 65% larger towns) and marital status (48% single, 43% in relationships, 6% divorced, 3% widowed). Just over half (52%) had a Christian religious affiliation (Catholic, Protestant, etc.), while the rest were agnostics/non-believers. The study procedure included filling in questionnaires on spirituality, forgiveness, HIV status acceptance, and life satisfaction. The average time to participate in the survey was 10 min.

Measures

A short form of the Interfaith Spirituality Scale (IFS) by Kira et al. (2021) was used to measure spirituality as “*the feeling of a direct relationship with your creator, and your ability to transcend yourself*” (p. 1964). A short form of the IFS consists of four statements arranged into a single factor (in our study $\alpha = .81$). The participant's task is to respond to each on a 4-point Likert scale where 1 = “*Definitely not*” and 5 = “*Definitely yes*”.

The Forgiveness Scale (FS) by Toussaint et al. (2001) was used to measure forgiveness as a multidimensional disposition. In this study, we used the subscales: *forgiveness of others* (five items; $\alpha = .73$) and *self-forgiveness* (two statements; $\alpha = .68$). The respondent expresses their attitude towards each of the statements on a 5-point Likert scale where 1 = “*I strongly disagree*” and 5 = “*I strongly agree*”.

The Acceptance of Illness Scale (AIS) by Felton et al. (1984), validated for HIV, measured HIV status acceptance as the lack of negative responses and emotions associated with the infection. The AIS consists of eight statements arranged into a single factor ($\alpha = .89$) describing the negative consequences of

poor health, limitations imposed by HIV infection, lack of independence, dependence on others, and lowered self-esteem. Each item is scored on a 5-point Likert-type scale, from 1 point = “Completely agree” to 5 points = “Completely disagree”. The higher the score, the higher the acceptance of the condition and the lesser the negative emotions associated with the infection.

The Satisfaction with Life Scale (SWLS) by Diener et al. (1985) was used to measure subjective well-being. The SWLS consists of five items arranged into a single factor ($\alpha = .91$). The participant’s task is to respond to each statement on a 7-point Likert scale, where 1 = “I strongly disagree” and 7 = “I strongly agree”.

In addition, participants completed demographic questionnaires reported medical history, and were asked to identify their religiosity on a 7-point Likert scale, where 1 = “I am not” and 7 = “I am very”.

Statistical analyses

The analyses were performed using the IBM SPSS Statistics 28 software and the PROCESS 4.2 plug-in for mediation effects analysis. Normality was assessed using the Kolmogorov–Smirnov test, whereas homoscedasticity of variance was assessed using Levene’s test. The data allowed for applying parametric tests. The links between variables were evaluated using Pearson’s r correlation analysis. The mediation effect was analyzed using the bootstrap method. The Bootstrap analysis sample size was 5000, and the mediation effect test was obtained as significant when it did not contain zero within the 95% confidence interval. The effect size was assessed based on adjusted R^2 . The significance level was determined at $p \leq .05$.

Results

Means and correlations are shown in Table 1. Using Process Model 80 (Hayes, 2017), we tested whether spirituality is correlated with satisfaction with life through changes in self-forgiveness (Mediator 1A), forgiveness for others (Mediator 1B), and HIV status acceptance (Mediator 2). A visualization of the hypothetical mediation model is presented in Figure 1. Please note that Figure 1 presents standardized beta (β) coefficients, enabling the comparison of the relative strengths of relationships within the model. This approach complements the results reported in the text that utilize unstandardized (B) coefficients, which are in the original units of the variables. The total effect (without any mediators) equaled $B = 0.141$ ($SE = 0.053$; $p = .009$; 95% $CI = 0.036, 0.245$; $R^2 = 0.02$). When hypothetical mediators of forgiveness and acceptance were included in the model, the total effect increased, indicating a standard suppression effect (direct effect; $B = 0.216$; $SE = 0.052$; $p < .001$; 95% $CI = 0.115, 0.318$; $R^2 = 0.16$). Spirituality also proved to be significantly associated with self-forgiveness ($B = 0.310$; $SE = 0.042$; $p < .001$; 95% $CI = 0.226, 0.393$; $R^2 = 0.08$) and HIV status acceptance ($B = 0.056$; $SE = 0.028$; $p = .041$; 95% $CI = 0.002, 0.111$; $R^2 = 0.03$). In addition, the following significant pathways were observed in the model: self-forgiveness and acceptance ($B = 0.290$; $SE = 0.025$; $p < .001$; 95% $CI = 0.241, 0.34$), self-forgiveness and satisfaction with life ($B = 0.167$; $SE = 0.052$; $p = .001$; 95% $CI = 0.066, 0.269$), forgiveness of others and acceptance ($B = 0.102$; $SE = 0.05$; $p = .043$; 95% $CI = 0.003, 0.2$), forgiveness of others and satisfaction with life ($B = 0.358$; $SE = 0.094$; $p < .001$; 95% $CI = 0.173, 0.542$), and acceptance and satisfaction with life ($B = 0.468$; $SE = 0.074$; $p < .001$; 95% $CI = 0.323, 0.612$). The

Table 1. Means and correlations ($N = 648$).

	Min	Max	$M(SD)$	r				
				1.	2.	3.	4.	5.
1. Spirituality	1	4	2.7 (0.9)	–				
2. Self-forgiveness	1	5	3.1 (1)	.28***	–			
3. Forgiveness for others	2	4.3	3.1 (0.5)	.05	.22***	–		
4. HIV status acceptance	1.1	4.4	2.9 (0.6)	–.04	.40***	.02	–	
5. Satisfaction with life	1	6	3.9 (1.2)	.10**	.23***	.17***	.31***	–
Age				.03	.08*	.01	.02	.16***
Gender (0 = female, 1 = male)				–.12**	–.09*	–.03	.07	–.10**
Religious affiliation (0 = unbeliever, agnostic, 1 = Christian)				.46***	.09*	.02	–.12**	–.10**
Religiosity	1	7	4.5 (1.5)	.77***	.26***	.05	–.08*	–.04
Place of residence (0 = village or city up to 100ths inhabitants, 1 = city over 100ths inhabitants)				.04	.01	.03	.11*	.07
Marital status (0 = single, divorced, widow(er), 1 = married or in informal relationship)				–.05	–.06	.06	.08*	.06
Education (0 = below higher, 1 = higher)				.07	.08*	.09*	.09*	.03

* $p < .05$, ** $p < .01$, *** $p < .001$.

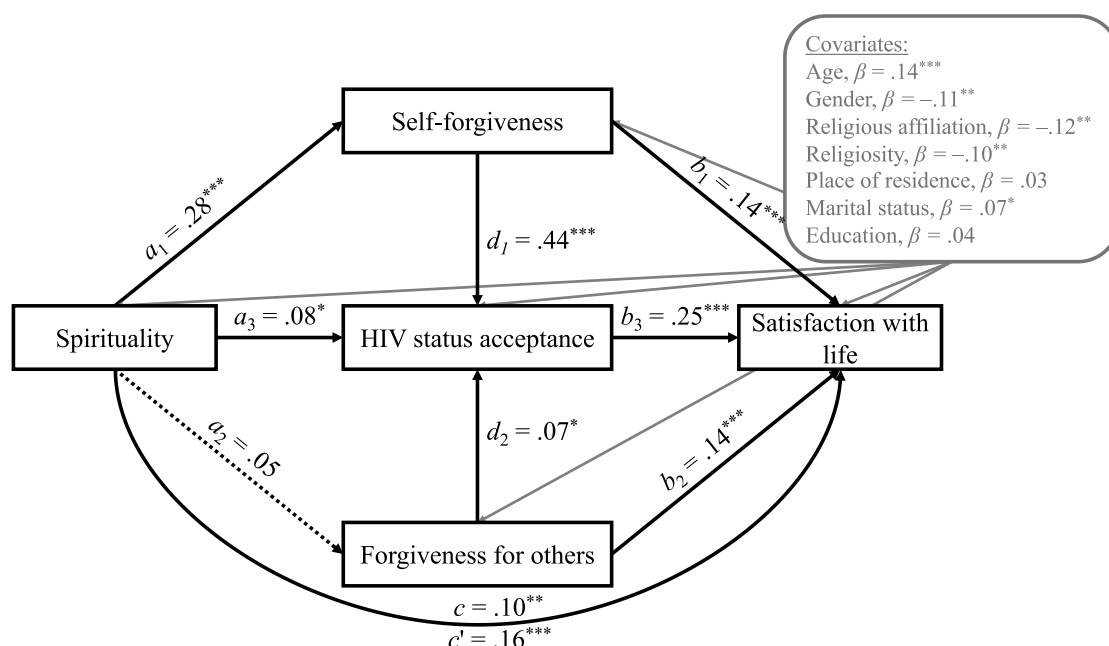


Figure 1. Results of serial multiple mediation model (standardized coefficients), $*p < .05$, $**p < 0.01$, $***p < .001$.

model was adjusted for the effects of sociodemographic variables.

The analysis revealed a statistically significant indirect association between spirituality and satisfaction with life through self-forgiveness, $B = -0.052$; $Boot_{SE} = 0.018$; $Boot_{95\% CI} = -0.088, -0.017$; a statistically significant indirect link between spirituality and satisfaction with life through acceptance, $B = 0.026$; $Boot_{SE} = 0.014$; $Boot_{95\% CI} = 0.002, 0.055$; and a statistically significant serial indirect link between spirituality and satisfaction with life through self-forgiveness (M1) and acceptance (M2), $B = -0.042$; $Boot_{SE} = 0.01$; $Boot_{95\% CI} = -0.063, -0.025$. The indirect association between spirituality and satisfaction with life through forgiveness of others ($Boot_{95\% CI} = -0.023, 0.004$) and the serial effect of forgiveness of others through acceptance ($Boot_{95\% CI} = -0.001, 0.003$) were statistically insignificant.

Discussion

In light of previous research, spirituality has been recognized as a multidimensional phenomenon that improves quality of life and psychophysical health in PLWH, which directly or through mediating factors (e.g., healthy behaviors, optimism, social support) provides resources for coping with stressors, especially stigma and discrimination (Kudel et al., 2011; Szaflarski, 2013). The present study aimed to extend these findings by assessing the potential mediating effect of self-forgiveness, forgiveness of others, and

acceptance of HIV status on the relationship between spirituality and quality of life. As expected, these three mediators straightforwardly and serially mediated the relationship between the independent and dependent variable. The data obtained shows that self-transcendent PLWH who feel connection to a supreme being are more likely to free themselves from unacceptance and unforgiveness of self and others and replace these emotions with self-beneficial beliefs, feelings and behaviors that facilitate to adaptation to the situation and a reduction in psychological discomfort, which consequently promotes perceptions of well-being. The obtained effects indirectly correspond with the results of previous studies, according to which self-forgiveness and acceptance were critical resources in adaptation to HIV (Andrinopoulos et al., 2011; Jain & Tiwari, 2016; Skalski et al., 2022; Toussaint et al., 2023).

Given the cross-sectional nature of our analysis, it is important to note that the associations observed do not imply causation. While our findings suggest that spirituality, self-forgiveness, and acceptance play significant roles in enhancing life satisfaction among PLWH, we cannot conclusively determine the directionality of these relationships. This acknowledgment brings to the forefront the importance of considering bidirectionality in our findings, as the relationships among spirituality, self-forgiveness, acceptance, and life satisfaction could potentially influence each other in multiple directions. Future research should delve into these bidirectional influences to provide a more nuanced understanding of the dynamics at play.

In the tested serial mediation model, the inclusion of the mediators improved the predictive validity of spirituality relative to quality of life in PLWH, indicating a classical suppression effect. At the statistical level, this means that the mediators controlled (suppressed) the variance of spirituality (i.e., the variance they shared with the independent variable) causing the regression coefficient of spirituality on life satisfaction to be larger than when the suppressor variables were not in the model. On a theoretical level, therefore, it seems likely that freedom from the shame and guilt associated with HIV infection is, to some extent, necessary for PLWH to make sense of their continued existence and to “connect” with the Creator, as well as to derive satisfaction from doing so. Since the simple mediation-by-acceptance model yielded a positive statistic in the Bootstrap analysis, it seems that the suppression effect is primarily about self-forgiveness. These findings align with the concept of relational spirituality (Sandage & Williamson, 2010), which posits that spirituality nurtures forgiveness through meaningful, purposeful interactions that enhance empathy and reconciliation. Conversely, recent developments in this theoretical area, such as those by Skalski-Bednarz and Toussaint (2024), propose that the act of forgiveness may further deepen spiritual connections by encouraging qualities like humility, grace, and unconditional love, suggesting multiple pathways through which spirituality and forgiveness may interact to enhance well-being.

Forgiveness of others was not a significant mediator in the tested model, and correlated less strongly with life satisfaction compared to self-forgiveness. These observations correspond with the results of a previous study (Nkomo & Kufankomwe, 2020), according to which self-forgiveness may be a stronger predictor of PLWH’s well-being than interpersonal forgiveness, as it is more likely to enable positive reevaluation and acceptance of the patient’s social role (e.g., undergoing ARV treatment). Already earlier, Hua (2012) indicated that shame, which is strongly associated with self-stigma and unforgiveness, prevents seeking and accessing medical care by PLWH. On the other hand, a recent study by Toussaint et al. (2023) on a sample of French PLWH provided different results relative to the general consensus. The authors explained that France being a very secular country where forgiveness is not taught or preached universally may be a place where people who forgive others feel more satisfaction in doing so than people in other countries. Thus, the conclusions of Toussaint et al (2023). emphasize the potential moderating effect of culture on the benefits of forgiveness and

the possible local validity of the effects of forgiveness research.

In addition to classic demographic variables, we controlled for religious affiliation and religiosity as covariates in the analyses. In addition, nearly half of our respondents were agnostics or non-believers. Although spirituality and religiosity are constructs strongly associated with religion (Lin et al., 2012), they can also be used by non-believers. According to Walach (2017), spirituality can help people discover meaning and significance in the world around them without any assumptions about the existence of supernatural factors, while the results of a meta-analysis by Lundahl et al. (2008) suggest similar effects of forgiveness in believers and non-believers. In the margin, a strong obtained association between religiosity and spirituality warrants further exploration. The correlation between these phenomena is typically robust, with studies frequently indicating a range of .50–.80 (Jeserich et al., 2023), even in clinical samples (Rippentrop et al., 2006). This strong relationship signifies considerable overlap in the ways individuals engage with and understand the sacred, encompassing both personal beliefs and practices related to spirituality, and the more organized, formal aspects of religiosity. Despite this overlap, it’s essential to acknowledge that spirituality and religiosity are distinct: spirituality embodies a broader, more personal connection to the sacred, which can exist both within and beyond traditional religious frameworks, whereas religiosity is closely tied to formal religious institutions and practices (Hill, 2013). This distinction underscores the varied ways individuals find meaning and connection to the transcendent.

Despite its strengths, this study has some limitations. First, it was cross-sectional, which prevents passing clear judgment on the causes and effects, a cautionary point already emphasized at the beginning of the discussion. Longitudinal studies and randomized controlled trials are recommended to understand causal assertions. Nevertheless, there is still much to be learned from studies examining mediation in cross-sectional data. Secondly, the sample’s self-selection through a Google Forms survey, its anonymity, and the reliance on self-reported HIV status introduce potential biases that could affect the representativeness and accuracy of our data. Thirdly, the sample was highly homogeneous in terms of treatment and health outcomes, making it impossible to include these variables as covariates. Finally, in the study, we did not control for sexual orientation, which may have influenced the severity of the phenomena. Due to the effect of dual stigma (route of infection and sexual orientation), homosexuals may present greater difficulties in self-forgiveness, but there is no reason

to believe this would affect the direction or magnitude of the demonstrated relationships.

The findings of our study indicate that offering spiritual care as an option within health services for PLWH could be beneficial. In addition to identifying spiritual needs, social service providers might consider introducing teach their patients repetition techniques concerning a holy word/mantra, mindfulness meditation or centering prayer to improve their mental state (Szaflarski, 2013). Future interventions could include options for self-forgiveness education (e.g., *Restore: The Journey Toward Self-Forgiveness*), which encourages self-acceptance, self-improvement and commitment through prayer/meditation. In such programs, the participant learns the definition of unforgiveness of self and learns to redirect negative thoughts or feelings about yourself and restore a positive, productive self-image. As per Toussaint et al. (2014), even a 90-minute *Restore* intervention can be sufficient for real changes in self-forgiveness and health benefits.

In summary, this study examines the interplay between spirituality, depicted as a profound connection with the creator and the ability to surpass oneself, and various psychological factors such as self-forgiveness, forgiveness of others, acceptance of HIV status, and life satisfaction in PLWH, suggesting that spirituality and self-forgiveness may contribute to increased life satisfaction through the mechanism of acceptance. However, the study design is correlational in nature, and we caution against overinterpreting the directions of the relationships explored. Therefore, while the study points to potentially significant connections between spirituality, self-forgiveness, acceptance, and well-being in PLWH, it also highlights the complex nature of these relationships and the need for further research. This future research should aim to elucidate these potential pathways more clearly and inform the development of targeted interventions.

Acknowledgements

SBS-B is grateful to the Polish National Agency for Academic Exchange (NAWA) for a visiting professorship under the NAWA-Bekker BPN/BEK/2022/1/00021 at Luther College in Decorah, IA, where the writing of this manuscript took place.

Author contributions

All authors contributed to the manuscript – they planned the study, collected data, conducted statistical analysis and interpretation of data: SBS-B, LLT, KK, and JS. The first version of the manuscript was

prepared by the SBS-B and then revised and accepted by all authors.

Consent to participate

Informed consent was obtained from all individual participants included in the study.

Data availability statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Disclosure statement

No potential conflict of interest was reported by the author(s).


Funding

The author(s) reported there is no funding associated with the work featured in this article.

Ethics approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This study was approved by the Ethics Committee of the Institute of Psychology, Polish Academy of Sciences.

ORCID

Sebastian Binyamin Skalski-Bednarz  <http://orcid.org/0000-0002-6336-7251>

Loren L. Toussaint  <http://orcid.org/0000-0001-8876-1848>

Karol Konaszewski  <http://orcid.org/0000-0003-1362-4245>

Janusz Surzykiewicz  <http://orcid.org/0000-0001-6099-7226>

References

- Ahmadi, Z., Darabzadeh, F., Nasiri, M., & Askari, M. (2015). The effects of spirituality and religiosity on well-being of people with cancer: A literature review on current evidences. *Jundishapur Journal of Chronic Disease Care*, 4 (2). <https://doi.org/10.5812/jjcdc.28386>
- Andersson, G. Z., Reinius, M., Eriksson, L. E., Svedhem, V., Esfahani, F. M., Deuba, K., Rao, D., Lyatuu, G. W., Giovenco, D., & Ekström, A. M. (2020). Stigma reduction interventions in people living with HIV to improve health-related quality of life. *The Lancet HIV*, 7(2), 129–140. [https://doi.org/10.1016/S2352-3018\(19\)30343-1](https://doi.org/10.1016/S2352-3018(19)30343-1)
- Andrinopoulos, K., Clum, G., Murphy, D. A., Harper, G., Perez, L., Xu, J., Cunningham, S., & Ellen, J. M. (2011).

- Health related quality of life and psychosocial correlates among HIV-infected adolescent and young adult women in the US. *AIDS Education and Prevention*, 23 (4), 367–381. <https://doi.org/10.1521/aeap.2011.23.4.367>
- Arefpour, A. M., Izanloo, A., Shojaei, F., Mirkazemi, M., & Hajjaliloo Sami, S. (2021). A study of spirituality, self-forgiveness and self-blame in the quality of life of patients with breast cancer. *Razavi International Journal of Medicine*, 9, 16–20. <https://doi.org/10.30483/rijm.2021.249710.0>
- Bennett, D. S., Traub, K., Mace, L., Juarascio, A., & O'Hayer, C. V. (2016). Shame among people living with HIV: A literature review. *AIDS Care*, 28(1), 87–91. <https://doi.org/10.1080/09540121.2015.1066749>
- Byra, S., Mróz, J., & Kaleta, K. (2020). Forgiveness and acceptance of disability in people with traumatic spinal cord injury—the mediating role of disability appraisal. A cross-sectional study. *Spinal Cord*, 58(12), 1317–1324. <https://doi.org/10.1038/s41393-020-0507-6>
- Carver, C. S., Scheier, M. F., & Weintraub, K. J. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267–283. <https://doi.org/10.1037/0022-3514.56.2.267>
- Cimete, G. (2002). *End-of-life care*. Nobel.
- Cohen, S., & Williamson, G. M. (1991). Stress and infectious disease in humans. *Psychological Bulletin*, 109(1), 5–24. <https://doi.org/10.1037/0033-2909.109.1.5>
- Coyle, J. (2002). Spirituality and health: Towards a framework for exploring the relationship between spirituality and health. *Journal of Advanced Nursing*, 37(6), 589–597. <https://doi.org/10.1046/j.1365-2648.2002.02133.x>
- Currier, J. M., Drescher, K. D., Holland, J. M., Lisman, R., & Foy, D. W. (2016). Spirituality, forgiveness, and quality of life: Testing a mediational model with military veterans with PTSD. *The International Journal for the Psychology of Religion*, 26(2), 167–179. <https://doi.org/10.1080/10508619.2015.1019793>
- Davis, D. E., Hook, J. N., Van Tongeren, D. R., DeBlare, C., Rice, K. G., & Worthington, E. L. (2015). Making a decision to forgive. *Journal of Counseling Psychology*, 62 (2), 280–288. <https://doi.org/10.1037/cou0000054>
- Davis, D. E., Hook, J. N., Van Tongeren, D. R., & Worthington, E. L. (2012). Sanctification of forgiveness. *Psychology of Religion and Spirituality*, 4(1), 31–39. <https://doi.org/10.1037/a0025803>
- Davis, D. E., Hook, J. N., Worthington, J., & Everett, L. (2008). Relational spirituality and forgiveness: The roles of attachment to god, religious coping, and viewing the transgression as a desecration. *Journal of Psychology & Christianity*, 27, 293–301.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13
- Dobrakowski, P. P., & Skalski, S. (2019). Personality changes in HIV-infected patients who have been receiving highly active antiretroviral therapy. *HIV & AIDS Review. International Journal of HIV-Related Problems*, 18(3), 165–175. <https://doi.org/10.5114/hivar.2019.88445>
- Earnshaw, V. A., Smith, L. R., Chaudoir, S. R., Amico, K. R., & Copenhaver, M. M. (2013). Hiv stigma mechanisms and well-being among PLWH: A test of the HIV stigma framework. *AIDS and Behavior*, 17(5), 1785–1795. <https://doi.org/10.1007/s10461-013-0437-9>
- Enright, R. D. (1996). Counseling within the forgiveness triad: On forgiving, receiving forgiveness, and self-forgiveness. *Counseling and Values*, 40(2), 107–126. <https://doi.org/10.1002/j.2161-007X.1996.tb00844.x>
- Felton, B. J., Revenson, T. A., & Hinrichsen, G. A. (1984). Stress and coping in the explanation of psychological adjustment among chronically ill adults. *Social Science & Medicine*, 18(10), 889–898. [https://doi.org/10.1016/0277-9536\(84\)90158-8](https://doi.org/10.1016/0277-9536(84)90158-8)
- Fisher, J. (2010). Development and application of a spiritual well-being questionnaire called SHALOM. *Religions*, 1 (1), 105–121. <https://doi.org/10.3390/rel1010105>
- Genia, V. (2009). Evaluation of the spiritual well-being scale in a sample of college students. *The International Journal for the Psychology of Religion*, 21(1), 25–33. https://doi.org/10.1207/S15327582IJPR1101_03
- Hall, B. B., Webb, J. R., & Hirsch, J. K. (2020). Spirituality and suicidal behavior: The mediating role of self-forgiveness and psychache. *Psychology of Religion and Spirituality*, 12(1), 36–44. <https://doi.org/10.1037/rel0000182>
- Hayes, A. F. (2017). Partial, conditional, and moderated moderated mediation: Quantification, inference, and interpretation. *Communication Monographs*, 85(1), 4–40. <https://doi.org/10.1080/03637751.2017.1352100>
- Hill, P. C. (2013). Measurement assessment and issues in the psychology of religion and spirituality. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 48–74). Guilford.
- Hua, W. Q. (2012). *Back in my hands: The role of self-forgiveness and stigma in HIV-positive adults*. University of North Texas.
- Jain, P., & Tiwari, G. K. (2016). Body image satisfaction and life satisfaction in HIV/AIDS patients. *The International Journal of Indian Psychology*, 3(2). <https://doi.org/10.25215/0302.097>
- Jeserich, F., Klein, C., Brinkhaus, B., & Teut, M. (2023). Sense of coherence and religion/spirituality: A systematic review and meta-analysis based on a methodical classification of instruments measuring religion/spirituality. *PLoS One*, 18(8), e0289203. <https://doi.org/10.1371/journal.pone.0289203>
- Kamya, M. R., Petersen, M. L., Kabami, J., Ayieko, J., Kwariisima, D., Sang, N., Clark, T. D., Schwab, J., Charlebois, E. D., Cohen, C. R., Bukusi, E. A., Peng, J., Jain, V., Chen, Y. H., Chamie, G., Balzer, L. B., & Havlir, D. V. (2021). Search Human Immunodeficiency Virus (HIV) streamlined treatment intervention reduces mortality at a population level in men with low CD4 counts. *Clinical Infectious Diseases*, 73(7), e1938–e1945. <https://doi.org/10.1093/cid/ciaa1782>
- Kim, J., Hulett, J., & Heiney, S. P. (2021). Forgiveness and health outcomes in cancer survivorship: A scoping review. *Cancer Nursing*, 44(4), 181–192. <https://doi.org/10.1097/NCC.0000000000000809>
- Kira, I., Özcan, N. A., Kucharska, J., Shuwiekh, H., Kanaan, A., & Bujold-Bugeaud, M. (2021). Measuring interfaith spirituality: Cross-cultural validation of interfaith spirituality scale and its short version. *Psychology*

- (Savannah, GA), 12(12), 1960–1981. <https://doi.org/10.4236/psych.2021.1212119>
- Koenig, H. G. (2008). Use of acute hospital services and mortality among religious and non-religious copers with medical illness. *Journal of Religious Gerontology*, 9(3), 1–22. https://doi.org/10.1300/J078V09N03_01
- Kudel, I., Cotton, S., Szaflarski, M., Holmes, W. C., & Tsevat, J. (2011). Spirituality and religiosity in patients with HIV: A test and expansion of a model. *Annals of Behavioral Medicine*, 41(1), 92–103. <https://doi.org/10.1007/s12160-010-9229-x>
- Lawler-Row, K. A., Hyatt-Edwards, L., Wuensch, K. L., & Karremans, J. C. (2011). Forgiveness and health: The role of attachment. *Personal Relationships*, 18(2), 170–183. <https://doi.org/10.1111/j.1475-6811.2010.01327.x>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
- Lee, Y. R., & Enright, R. D. (2019). A meta-analysis of the association between forgiveness of others and physical health. *Psychology & Health*, 34(5), 626–643. <https://doi.org/10.1080/08870446.2018.1554185>
- Lin, W. N., Enright, R. D., & Klatt, J. S. (2012). A forgiveness intervention for Taiwanese young adults with insecure attachment. *Contemporary Family Therapy*, 35(1), 105–120. <https://doi.org/10.1007/s10591-012-9218-2>
- Long, K. N., Worthington, E. L., VanderWeele, T. J., & Chen, Y. (2020). Forgiveness of others and subsequent health and well-being in mid-life: A longitudinal study on female nurses. *BMC Psychology*, 8(1), 1–11. <https://doi.org/10.1186/s40359-019-0349-1>
- Lundahl, B. W., Taylor, M. J., Stevenson, R., & Roberts, K. D. (2008). Process-based forgiveness interventions: A meta-analytic review. *Research on Social Work Practice*, 18(5), 465–478. <https://doi.org/10.1177/1049731507313979>
- Marcus, J. L., Leyden, W. A., Alexeeff, S. E., Anderson, A. N., Hechter, R. C., Hu, H., Lam, J. O., Towner, W. J., Yuan, Q., Horberg, M. A., & Silverberg, M. J. (2020). Comparison of overall and comorbidity-free life expectancy between insured adults With and without HIV infection, 2000–2016. *JAMA Network Open*, 3(6), e207954. <https://doi.org/10.1001/jamanetworkopen.2020.7954>
- Mela, M. A., Marcoux, E., Baetz, M., Griffin, R., Angelski, C., & Deqiang, G. (2008). The effect of religiosity and spirituality on psychological well-being among forensic psychiatric patients in Canada. *Mental Health, Religion & Culture*, 11(5), 517–532. <https://doi.org/10.1080/13674670701584847>
- Nkomo, T. S., & Kufankomwe, M. J. (2020). HIV and AIDS and self-forgiveness: The views of a group of people living with HIV and AIDS in Ekurhuleni, Johannesburg, South Africa. *Journal of Human Behavior in the Social Environment*, 30(5), 649–665. <https://doi.org/10.1080/10911359.2020.1736231>
- Pérez, J. E., Chartier, M., Koopman, C., Vosvick, M., Gore-Felton, C., & Spiegel, D. (2009). Spiritual striving, acceptance coping, and depressive symptoms among adults living with HIV/AIDS. *Journal of Health Psychology*, 14(1), 88–97. <https://doi.org/10.1177/1359105308097949>
- Rippentrop, A. E., Altmaier, E. M., & Burns, C. P. (2006). The relationship of religiosity and spirituality to quality of life among cancer patients. *Journal of Clinical Psychology in Medical Settings*, 13(1), 29–35. <https://doi.org/10.1007/s10880-005-9000-9>
- Sandage, S. J., & Williamson, I. (2010). Relational spirituality and dispositional forgiveness: A structural equations model. *Journal of Psychology and Theology*, 38(4), 255–266. <https://doi.org/10.1177/009164711003800403>
- Selye, H. (1946). The general adaptation syndrome and the diseases of adaptation. *Journal of Allergy*, 17(6), 358–398. [https://doi.org/10.1016/0021-8707\(46\)90159-1](https://doi.org/10.1016/0021-8707(46)90159-1)
- Skalski, S., Dobrakowski, P., & Wasilewska, A. (2022). Resilience and coping with stress vs. trauma effects in people living with HIV. *Culture and Education*, 2(2), 78–95. <https://doi.org/10.15804/kie.2022.02.05>
- Skalski-Bednarz, S. B., & Toussaint, L. L. (2024). A relational model of state of forgiveness and spirituality and their influence on well-being: A two-wave longitudinal study of women with a sexual assault history. *Psychology of Religion and Spirituality*. <https://doi.org/10.1037/rel0000526>
- Strelan, P. (2017). The measurement of dispositional self-forgiveness. *Handbook of the Psychology of Self-Forgiveness*, 75–86. https://doi.org/10.1007/978-3-319-60573-9_6
- Szaflarski, M. (2013). Spirituality and religion among HIV-infected individuals. *Current HIV/AIDS Reports*, 10(4), 324–332. <https://doi.org/10.1007/s11904-013-0175-7>
- Tang, C., Goldsamt, L., Meng, J., Xiao, X., Zhang, L., Williams, A. B., & Wang, H. (2020). Global estimate of the prevalence of post-traumatic stress disorder among adults living with HIV: A systematic review and meta-analysis. *BMJ Open*, 10(4), e032435. <https://doi.org/10.1136/bmjopen-2019-032435>
- Tenklova, L., & Slezackova, A. (2016). Differences between self-forgiveness and interpersonal forgiveness in relation to mental health. *Journal of the Indian Academy of Applied Psychology*, 42, 282–290.
- Theuninck, A. C., Lake, N., & Gibson, S. (2010). HIV-related posttraumatic stress disorder: Investigating the traumatic events. *AIDS Patient Care and STDs*, 24(8), 485–491. <https://doi.org/10.1089/apc.2009.0231>
- Toussaint, L., Barry, M., Bornfriend, L., & Markman, M. (2014). Restore: The journey toward self-forgiveness: A randomized trial of patient education on self-forgiveness in cancer patients and caregivers. *Journal of Health Care Chaplaincy*, 20(2), 54–74. <https://doi.org/10.1080/08854726.2014.902714>
- Toussaint, L. L., Skalski-Bednarz, S. B., Lanoix, J. P., Konaszewski, K., & Surzykiewicz, J. (2023). The relationship between forgiveness and health outcomes among people living with HIV: A cross-sectional study in France. *AIDS and Behavior*, 27(10), 3332–3341. <https://doi.org/10.1007/s10461-023-04052-w>
- Toussaint, L. L., Webb, J. R., & Hirsch, J. K. (2017). Self-forgiveness and health: A stress-and-coping model. *Handbook of the Psychology of Self-Forgiveness*, 87–99. https://doi.org/10.1007/978-3-319-60573-9_7
- Toussaint, L. L., Williams, D. R., Musick, M. A., & Everson, S. A. (2001). Forgiveness and health: Age differences in a U.S. probability sample. *Journal of Adult Development*, 8(4), 249–257. <https://doi.org/10.1023/A:1011394629736>
- Tsang, J. A., McCullough, M. E., & Hoyt, W. T. (2005). Psychometric and rationalization accounts of the

- religion-forgiveness discrepancy. *Journal of Social Issues*, 61(4), 785–805. <https://doi.org/10.1111/j.1540-4560.2005.00432.x>
- Walach, H. (2017). Secular spirituality—what it is. Why we need it. How to proceed. *Journal for the Study of Spirituality*, 7(1), 7–20. <https://doi.org/10.1080/20440243.2017.1290028>
- Wald, R. L., & Temoshok, L. R. (2004). *Spirituality, forgiveness, and health in a U.S. inner-city HIV clinic*. Proceedings, XV International AIDS Conference, Bangkok, Thailand.
- Webb, J. R., & Toussaint, L. (2020). Forgiveness, well-being, and mental health. In E. L. Worthington, Jr. & N. Wade (Eds.), *Handbook of forgiveness* (2nd ed., pp. 188–197). Routledge.
- Webb, J. R., & Toussaint, L. L. (2017). Self-forgiveness as a critical factor in addiction and recovery: A 12-step model perspective. *Alcoholism Treatment Quarterly*, 36(1), 15–31. <https://doi.org/10.1080/07347324.2017.1391057>
- Webb, J. R., & Toussaint, L. L. (2018). Self-forgiveness as a critical factor in addiction and recovery: A 12-step model perspective. *Alcoholism Treatment Quarterly*, 36(1), 15–31. <https://doi.org/10.1080/07347324.2017.1391057>
- WHO. (2024). *The global health observatory*. <https://www.who.int/data/gho/data/themes/hiv-aids>
- Worthington, E. L., & Lamb, S. (2023). Forgiveness in treatment: The importance of careful definitions and realistic objectives. In G. Pettigrove & R. Enright (Eds.), *The routledge handbook of the philosophy and psychology of forgiveness* (pp. 418–429). Routledge.