



MEANING IN LIFE AND ECO-ANXIETY AS FACTORS OF SOCIAL ISOLATION AMONG ADOLESCENTS LIVING WITH HIV

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ABSTRACT

Among adolescents; HIV has been linked with a lot of worries regarding who they are. These negative associations can be internalized, and for the adolescent who is struggling to work out who they are; the negative social responses to HIV can lead to profound negative experiences of self-stigma. Therefore, this research investigated the relationship between meaning in life and eco-anxiety as factors of social isolation among adolescents living with HIV. A total of two hundred (200) adolescents (male 60, 30%) and female (140, 70%), participated in the study with their ages ranging from 10-19. They were selected from two Health facilities in Nsukka urban of Enugu State. The participants were evaluated using; The Meaning in Life Scale (MLQ), Hogg Eco-Anxiety Scale (HEAS) and UCLA Social Isolation Scale. The study employed a cross-sectional research design, and Hayes PROCESS Macro was used to analyze the data. The result of Hierarchical multiple linear regressions showed that presence of meaning in life was a significant negative predictor of social association ($\beta = -.28, p < .01$); search for meaning in life was a significant positive predictor of social isolation ($\beta = .21, p < .01$); while eco-anxiety was a significant negative predictor of social isolation ($\beta = -.23, p < .01$) among adolescents living with HIV. This study emphasizes the importance of multi-dimensional interventions that not only address the intrinsic quest for meaning, but also recognizes external concerns like eco-anxiety as potential areas for fostering connection and reducing isolation among HIV positive adolescents.

Keywords: Adolescents, eco-anxiety, social isolation, meaning in life.

INTRODUCTION

Social isolation is a condition in which an individual feels disconnected from others and lacks meaningful social relationships (Biondi, & Nicholson, 2013). It can be caused by a number of factors, including the stigma associated with HIV, the fear of transmission, the challenges of managing their health and the common perception of HIV being associated with an imminent death.

The sense of feeling alone in managing HIV can impact profoundly on psychological and emotional well-being (Obeagu, & Akinleye, 2024). It can lead to a number of negative consequences, including: depression, anxiety, low self-esteem. Social isolation can also affect access to healthcare, with many people living with HIV struggling to access the medical care and support they need. In addition, social isolation can lead to a lack of emotional and social support, which is particularly crucial for individuals with HIV who may be dealing with complex medical issues and need support to manage their condition effectively (Ellis et al., 2021).

Adolescents and young people represent a growing share of people living with HIV worldwide (Slogrove et al., 2017). In 2022 alone, 480,000 young people between the ages of 10 to 24 were newly infected with HIV, of whom 140,000 were adolescents between the ages of 10 and 19 (Atibioke et al., 2024). To compound this, most recent data indicate that only 25 percent of adolescent girls and 17 percent of adolescent boys aged 15-19 in Eastern and Southern Africa – the region most affected by HIV – have been tested for HIV in the past 12 months and received the result of the last test (WHO, 2023).

Adolescence is the transition from childhood to adulthood and a time when the child moves from dependence towards greater independence. At this time, children begin to gain a sense of autonomy and a desire to establish their individual identity. Adolescence is known as a time of risk taking and experimentation.

It is typical for an HIV diagnosis to be surrounded with secrecy for many groups of people who become infected. For children and adolescents who have grown up with HIV, HIV is closely linked to their sense of who they are, as it has always been a part of them. As such, secrecy and HIV can become interlinked and this means they keep part of themselves a secret. These negative associations can be internalized by people living with HIV, and for the adolescent who is struggling to work out who they are; the negative social responses to HIV can lead to a profound experience of self-stigma. This can reinforce feelings of difference, isolation (particularly from peers) and being of less worth than others and this can lead to social isolation. The general impression is that, HIV/AIDS-related stigma also fuels new HIV infections because it can deter people from getting tested, make them less likely to acknowledge their risk of infection and discourage those who are HIV-positive from discussing their HIV status with their sexual partners and others. It may also prevent them from accessing much needed antiretroviral therapy (Pourat et al., 2019). An adolescent who perceives that he/she is being isolated by peers or any social group is likely to begin to doubt his/her existence. Therefore, one of the variables of interest in the present study is meaning in life.

Meaning in life is the feeling that one's existence has purpose, significance, and coherence. It pertains to the significance of living or existence in general (Steger, 2012). Meaning in life has been conceptualized along two dimensions: the search for meaning, which pertains to the motivational aspect of seeking meaning in one's life, and the presence of meaning, which involves how much meaning in life people experience (Borawski et al, 2022). There has been considerable research interest in understanding the respective functional roles of the search for and presence of meaning (li & Kwok, 2024). Some factors that may contribute to a sense of meaning include relationships with others, personal goals and aspirations, and a belief in a higher power. Research suggests that meaning in life is a fundamental human need that can have a significance impact on psychological and physical well-being. People who feel their lives are meaningful tend to live longer, healthier, and happier lives. Glaw et al (2017) asserted that, higher levels of meaning in life are associated with happiness, positive affect, well-being, and life satisfaction. Adolescents living with HIV may struggle to find meaning in their lives, as they may feel like they are living with a death sentence. Many other related questions include: "Why am I here?", "What is life all about?", or "What is the purpose of existence?" In summary, the exploration of the meaning in life is highly relevant for adolescents with HIV as it can significantly impact their psychological well-being, coping strategies, social connections, and overall quality of life. Understanding how meaning-making processes intersect with the experiences of adolescents living with HIV can lead to more effective interventions and support programs tailored to their unique needs.

As they are aware of the environmental threats that they and their loved ones face, adolescents living with HIV also experience eco-anxiety which is the second variable that is of interest in the present study. Eco-anxiety refers to the fear and anxiety that people experience about the environmental crisis. In the same vein, McLean (2023) defined eco-anxiety as the chronic fear of environmental tragedy that comes from observing the seemingly irrevocable impact of climate change and the associated concern for one's future and that of the next generation. The adverse emotional and behavioral symptoms of eco-anxiety include sadness, depression, frustration, hopelessness (Coffey et al., 2021; Hogg et al., 2021; Schwartz et al., 2022). For adolescents living with HIV, eco-anxiety can be especially heightened as they are already living with a life-threatening illness and they are now also facing the threat of climate change within their environment. This anxiety can be caused by a number of factors, including the awareness of the environmental threats that they face, the feeling of helplessness in the face of these threats, and the fear of what the future holds for our planet. Eco-anxiety can manifest in various ways, including feelings of helplessness, sadness, anger, guilt, and even physical symptoms such as headaches and sleep disturbances (Cianconi et al., 2023). It can also



contribute to the development or exacerbation of other mental health conditions such as depression and anxiety disorders.

Furthermore, public health and community practitioners in Nigeria have serious concerns about the welfare of adolescents living with HIV (Aransiola et al., 2014). Adolescents living with HIV should ideally have a sense of community and social support that enhances their general wellbeing. Nonetheless, recent data indicates that social isolation among adolescents living with HIV is on the rise (Kaunda-Khangamwa, 2020). Raising awareness of the effects of environmental (eco-anxiety) and human (meaning in life) variables on teenagers living with HIV is crucial in addressing the problem of social isolation among these vulnerable groups. Clinicians and the general public will benefit from this knowledge, which is based on the results of the current study, regarding prevention, intervention, and treatment plans for adolescents living with HIV. Policymakers and public health professionals should use this information to address those who are at risk of social isolation. Furthermore, as previously stated, social isolation is linked to later illness and mortality, making this information crucial for clinicians (Hajeck & Konig, 2022). Thus, the current study set out to investigate the intricate relationship between social isolation among adolescents living with HIV and eco-anxiety as well as the search for meaning in life. The ways in which these particular elements interact and influence these adolescents' actual experiences are not well understood. This study attempts to elucidate this interaction in order to give a comprehensive understanding of their experiences. Gaining a better understanding of how these teens deal with their quest for purpose, sense of fulfillment, environmental concerns, and HIV status will help us create programs that better meet their unique challenges. The results could guide initiatives to enhance these teens' general wellbeing and social integration, which would ultimately promote their general involvement and health. Therefore, the problem which this study addresses then is:

- (1) Will meaning in life significantly be associated with social isolation among adolescents living with HIV in Nsukka?
- (2) Will search for meaning significantly be associated with social isolation among adolescents living with HIV in Nsukka?.
- (3) Will eco-anxiety significantly be associated with social isolation among adolescents living with HIV in Nsukka Urban?

LITERATURE REVIEW

The theoretical framework of the present study is the Cognitive Appraisal Theory developed by Lazarus and Smith (1988). The idea of this theory is simply about the subjective interpretation made by individual to stimuli in the environment. Thus, emotions are elicited by evaluations (appraisals) of events and situations. Drawing from the perspective of this theory, this suggests that eco-anxiety and the pursuit of meaning in life are caused by the way people appraise or interpret information about environmental threats. People who are more likely to appraise environmental threats as serious and threatening are more likely to experience eco-anxiety, and may not be fulfilled about their existence in life. In the case of adolescents with HIV, they may be more likely to appraise environmental threats as serious and threatening because they are already facing a number of other challenges, such as the stigma associated with HIV, the physical and emotional challenges of living with HIV, and the uncertainty about their future. From the literature, it is obvious that some similar studies have been conducted to ascertain the above claim.

EMPIRICAL REVIEW

Meaning In Life and Social Isolation

Graeupner, and Coman (2017) study with 120 Turk sample on meaning making and social exclusion revealed a positive relationship. Then in a similar study by (Xia & Li, 2018; Mellor et al,



2008) provides insights into the relationship between meaning in life and social isolation. With 218 participants, the study revealed that meaning in life and search for meaning positively predicted social isolation. It is assumed that positive personal attachments contribute substantially to the capacity of making sense of one's life. The experience of social isolation is related to a reduction in life satisfaction. These findings indicate that perceived social isolation can be a significant mediator in life satisfaction and well-being across the adult lifespan during a global health crisis. Individuals reporting higher levels of social isolation experience less satisfaction with the conditions in their home. A similar recent study by [Machielse \(2018\)](#) on meaning in life and social isolation using data derived from a longitudinal qualitative study on 43 socially isolated adults in the Netherlands. The study elucidates how socially isolated adults deal with disembeddedness and feelings of redundancy, and how this lack of belonging and relatedness influences their experience of meaningfulness. In turn, the experience of a meaningful life enhances people's resilience and protects them against the damaging effects of major life changes, which tend to occur more often as people age. In addition, Kim and Chun (2024) study on meaning in life and loneliness among 213 community dwelling adults in Korea revealed that isolation was negatively associated with the presence of and search for meaning among older adults. A recent meta-analysis found that a higher degree of purpose in life, which is considered to be a crucial component of meaning in life, is a protective factor against the development of isolation longitudinally (Sutin et al., 2022). Another similar study by Li et al (2022) on the effect of meaning in life on the relapse tendency of compulsory isolation revealed that the search for meaning in life determines the attention given to relationship harmony and life enjoyment. Thus, the general pattern in this research is that increased social isolation is associated with decreased life satisfaction, and fulfilment (Cacioppo & Cacioppo, 2014; Coutin & Knapp, 2017; Dahlberg & McKee, 2018).

Eco-anxiety and Social Isolation

A recent systematic review emphasized, however, that various previous studies dealing with climate anxiety relied on rather specific samples focusing on comparably young individuals (such as student samples) which questions the generalizability of these findings particularly related to the general adult population. Moreover, it remains completely unclear whether climate anxiety is important for loneliness and perceived social isolation. More precisely, studies examining these associations are completely scarce in the literature.

In a recent study by Hajek and Konig (2022) on the association of eco-anxiety and social isolation with a sample of 3091 taken from the general adult population aged 18 to 74 years. Data collection took place in March 2022 in Germany. Eco-anxiety was measured using the Eco-Anxiety Scale. The Lantermann tool was used to assess perceived social isolation. Results: Multiple linear regressions revealed an association between higher eco-anxiety and higher perceived social isolation ($\beta = 0.10, p < 0.001$) among the total sample. A similar picture was identified in age-stratified regressions (i.e., among individuals aged 18 to 29 years, 30 to 49 years, and among individuals aged 50 to 64 years). In line with the above assertion, on the association of eco-anxiety and perceived social isolation, a negative association was reported by Hajek and Konig (2022). In line with the reviewed literature, the under-listed hypotheses were tested in this study:

Hypotheses

1. Meaning in life will positively be associated with social isolation among adolescents living with HIV in Nsukka urban.
2. Search for meaning in life will negatively be associated with social isolation among adolescents living with HIV in Nsukka urban.
3. Eco-anxiety will positively be associated with social isolation among adolescents living with HIV in Nsukka urban.



METHOD

Design

The present study adopted a cross-sectional survey design. Cross sectional survey design was adopted because data obtained from it can be used to make inferences about a population of interest (in-school adolescents) at one point in time.

Setting

The settings for this study were two different hospitals that usually distribute Antiretroviral drugs to patients within Nsukka Urban, all in Enugu state Nigeria. The settings are all located in South-East region of Nigeria.

Participants

Participants in this study consisted of 200 adolescents, both male (60, 30%) and female (140, 70%), selected from Faith Foundation Hospital Nsukka and Bishop Shanahan Hospital Nsukka, both located in Enugu State. Using a purposive sampling technique, the study aimed to ensure a representative mix of adolescents frequenting these hospitals. The age bracket of the respondents spanned from 13 to 19 years. The mean age of the participants was 16.5 years, with a standard deviation of 1.7 years, indicating a relatively close grouping around the average age. In terms of religion, the participants predominantly identified as Christians, in line with Enugu State's religious distribution. About 85% (170 individuals) identified as Christian, while 10% (20 individuals) identified as Muslim, and the remaining 5% (10 individuals) associated with other religions or chose not to specify.

Concerning ethnicity, the vast majority of the participants belonged to the Igbo ethnic group, reflecting the predominant ethnic group in Enugu State. Approximately 90% (180 individuals) identified as Igbo, with the remaining 10% (20 individuals) representing various other ethnic groups or not specifying their ethnicity.

Institutional ethical approval and informed consent were procured before the study commenced. Their educational backgrounds varied, encompassing junior secondary education, senior secondary education, and some in tertiary institutions or vocational training programs.

Instruments

For the present study instruments; the questionnaire consists of some items measuring the demographics of the participants such as age and gender, etc. Meaning in life Questionnaire (MLQ) developed by Steger et .al (2006), was used as a tool for assessing the presence of and search for meaning in life. The MLQ consists of 10 items. This 10-item questionnaire was designed to measure two dimensions of meaning in life: (1) presence of meaning and (2) Search for meaning. Items on the MLQ are rated on a 7-point, Likert-type scale with response options ranging from 1 (Absolutely True) to 7 (Absolutely Untrue)

The present researcher revalidated the instrument prior to the main study with a sample of 80 adolescents living with HIV purposively drawn from University of Nigeria Teaching Hospital, Ituku Ozalla Enugu state. For the Meaning in Life Scale, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .54, and the Bartlett's Test of Sphericity was 351.99 (df = 45, $p < .001$), indicating that the sample was sufficient to test for factorial validity of the scale. Two component factor structure of the scale was extracted, and they accounted for 42.52% of the variance. The items yielded a high internal consistency reliability, Cronbach's alpha of .71 for the total scale, .60 and .63 for the presence of meaning and search for meaning subscales, respectively.

The Hogg Eco-anxiety scale was developed by Hogg et .al (2021). HEAS is a 13 item scale that measures the mental health impact related to the environmental crisis ranging from loss, distress to emotional and



A revalidation study was performed on Eco-Anxiety scale with 80 respondents drawn from University of Nigeria Teaching Hospital, Ituku Ozalla Enugu state. For the Eco-Anxiety Scale, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .71, and the Bartlett's Test of Sphericity was 242.12 ($df = 78, p < .001$), indicating that the sample was sufficient to test for factorial validity of the scale. One component factor structure of the scale was extracted, and it accounted for 34.94% of the variance. The items yielded a fairly good internal consistency reliability, Cronbach's alpha of .60.

The *UCLA Social Isolation Scale* was developed by Russell et al (1980). It is a 20-item scale designed to measure one's subjective feelings of loneliness as well as feelings of social isolation. Participants rate each item as either O ("I often feel this way"), S ("I sometimes feel this way"), R ("I rarely feel this way"), N ("I never feel this way"). This measure is a revised version of the original UCLA Loneliness Scale. The main reason for this revision was to make 10 of the 20 original items reverse scored, and again to simplify the wording.

Using data from prior studies of college students: nurses, teachers, and the elderly, analyses of the reliability, validity, and factor structure of this new version of the UCLA Loneliness Scale were conducted. Results indicated that the measure was highly reliable, both in terms of internal consistency (coefficient α ranging from .89 to .94) and test-retest reliability over a 1-year period ($r = .73$). Convergent validity for the scale was indicated by significant correlations with other measures of loneliness. Construct validity was supported by significant relations with measures of the adequacy of the individual's interpersonal relationships, and by correlations between loneliness and measures of health and well-being. Confirmatory factor analyses indicated that a model incorporating a global bipolar loneliness factor along with two method factors reflecting direction of item wording provided a very good fit to the data across samples.

For the UCLA Social Isolation Scale, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .56, and the Bartlett's Test of Sphericity was 1003.41 ($df = 190, p < .001$), indicating that the sample was sufficient to test for factorial validity of the scale. One component factor structure of the scale was extracted, and it accounted for 16.04% of the variance. The items yielded an internal consistency reliability, Cronbach's alpha of .70.

Procedures

An introductory letter to conduct this study was obtained from the Department of Psychology, Faculty of the Social Sciences, University of Nigeria, Nsukka. On the other hand, ethical approval was obtained from Faith Foundation Hospital, Nsukka and Bishop Shanahan Hospital Nsukka, all in Enugu State. The participants both male and female adolescents were sampled from the two aforementioned hospitals in Nsukka urban. Informed consent were gotten from the participants before they were given a questionnaire to fill. Before the instruments were administered to the participants, the purpose of the study was briefly explained to the adolescents orally and they gave their consent. They were assured of the confidentiality of their responses, and the researcher made sure that they were eligible to participate in the study and at the same time were willing to participate.

A total of two hundred (200) copies of the questionnaire were administered to the students and they were encouraged to answer the questions as honestly as possible. All the items in the questionnaire were written in simple English hence the students did not find it hard to understand. The questionnaires were given to them and they were advised to carefully follow the instructions. Participants received the questionnaire form and completed it as they were given enough time to complete all items on the questionnaire and after that the research ensured that all questionnaires were collected after one week of visiting the hospitals because the hospitals normally have their appointments for the HIV positive clients every Tuesday for Bishop Shanahan, and every Thursday for Faith Foundation hospital respectively. There was no monetary reward, but rather there was an intrinsic incentive like word of praise was used to encourage them to be honest in

responding to the questions for their own good. There was no time limit in responding to the items. The researcher thanked the participants at the end of the study.

Designs/Statistics

The study adopted a cross sectional design because all the participants in the sample were made of participants with different ages measured at the same time. The data obtained from participants was analyzed using the Statistical Package for Social Sciences (SPSS®) version 21. Pearson's correlation (r) analysis was conducted to determine the relationships that exist between the study variables, while Hierarchical Multiple Regression was employed to statistically test the study hypotheses. The choice of correlation and regression was based on Urbina (2014) assertion that correlation allow researchers to make predictions by implying a certain amount of common shared variance, while regressions play a major role in demonstrating linkages between (a) scores on different tests (b) test scores and non-test (demographic) variables, (c) scores on parts of tests and scores on whole tests, etc. (Urbina, 2014).

RESULTS

Table 1 showed the correlations between the demographic variables and the main study variables. Table 2 is the regression results for the test of hypotheses.

Table 1: Pearson's correlations of demographic variables, presence of meaning, search for meaning, eco-anxiety, and social isolation among adolescents living with HIV.

Variables	Mean	SD	1	2	3	4	5
1 Gender	-	-	-	-	-	-	-
2 Presence of meaning	18.88	3.90	.02	-	-	-	-
3 Search for meaning	18.99	8.40	-.16	.23**	-	-	-
4 Eco-Anxiety	28.01	9.07	.19*	-.25**	-.03	-	-
5 Social isolation	55.59	9.04	.28**	-.24**	.12	-.08	-

Note. *** $p < .001$; ** $p < .01$; * $p < .05$; Gender (1 = male, 2 = female)

Table 1 shows the means, standard deviations, and correlations among the study variables. Females were associated with higher eco-anxiety ($r = .19$, $p < .05$) and higher social isolation ($r = .28$, $p < .05$). Presence of meaning associated positively with search for meaning ($r = .23$, $p < .01$), but related negatively with eco-anxiety ($r = -.25$, $p < .01$) and social isolation ($r = -.24$, $p < .001$). Search for meaning and eco-anxiety were not significantly related social isolation among adolescents living with HIV.

Table 2: Hierarchical multiple regression predicting social isolation among adolescents living with HIV by presence of meaning, search for meaning, and eco-anxiety, with gender as control variable

Predictors	Step 1			Step 2			Step 3		
	B	β	t	B	β	t	B	β	t
Gender	5.10	.28	3.47**	5.74	.32	4.05***	6.55	.36	4.64***
Presence of meaning				-.63	-.28	-3.50**	-.77	-.34	-4.22***
Search for meaning				.25	.21	2.65**	.27	.23	2.87**
Eco-Anxiety							-.22	-.23	-2.82**
R^2		.08			.18			.22	
$R^2\Delta$.08			.10			.05	
F		12.06 (1, 138)**			9.76 (3, 136)***			9.70 (4, 135)***	
$F\Delta$		12.06 (1, 138)**			8.01 (2, 136)***			7.97 (1, 135)***	

Note. *** $p < .001$; ** $p < .01$; * $p < .05$

Results of the hierarchical multiple regression for the test of the hypotheses is shown in Table 2. In Step 1, gender was added as a control variable due its significant correlation with the outcome variable (social isolation). Gender was a significant predictor of social isolation, $\beta = .28$,



$p < .01$. The B showed that being female was associated with higher social isolation among adolescents living with HIV. The model was significant, $F(1, 138) = 12.06$, $R^2 = .08$. The R^2 of .08 indicated that 8% of the variance social isolation among adolescents living with HIV was explained by the gender.

In Step 2, presence of meaning was a significant negative predictor of social isolation among adolescents living with HIV, $\beta = -.28$, $p < .01$. The B showed that for each one unit rise in presence of meaning, social isolation among adolescents living with HIV decreases by -.63 units. Search for meaning was a significant positive predictor of social isolation among adolescents living with HIV, $\beta = .21$, $p < .01$. The B showed that for each one unit rise in search for meaning, social isolation among adolescents living with HIV increases by .25 units. The model was significant, $F\Delta(2, 136) = 8.01$, $R^2 = .10$. The R^2 of .10 indicated that 10% of the variance social isolation among adolescents living with HIV was explained by the two dimensions of meaning in life.

In step 3, eco-anxiety was a significant negative predictor of social isolation among adolescents living with HIV, $\beta = -.23$, $p < .01$. The B showed that for each one unit rise in eco-anxiety, social isolation among adolescents living with HIV decreases by .22 units. The model was significant, $F\Delta(1, 135) = .7.97$, $R^2\Delta = .05$. The $R^2\Delta$ of .05 indicated that 5% of variance in social isolation among adolescents living with HIV was explained by eco-anxiety.

DISCUSSION

This study examined the association between meaning in life and eco-anxiety as factors of social isolation among adolescents living with HIV. Hence, three hypotheses were postulated for this study, and the study's results revealed several key findings concerning these hypotheses. Firstly, the finding confirmed the hypothesis indicating that the presence for meaning in life was associated with social isolation among adolescents living with HIV. This means that adolescents with a more profound sense of purpose and understanding of their life's significance felt less isolated. They are more fulfilled and ready to face their life challenges, and could overcome despair and suffering if they found some meaning or purpose in life, unlike when they are not and such could make them to feel isolated. In the context of this study, adolescents living with HIV, despite facing considerable health, societal, and psychological challenges, might find solace and reduce feelings of isolation if they can discover or construct a sense of purpose or meaning in their lives. In essence, the findings revealed the crucial role of meaning in life as a buffer against the feelings of isolation among adolescents living with HIV. This is in line with the works of (Kim and Chun, 2024)) who reported a negative relationship between meaning in life and social isolation. This implies that for healthcare providers and therapists working with adolescents living with HIV, the results suggest that enhancing these individuals' sense of meaning or purpose can be a potent tool in reducing feelings of social isolation. In addition, the therapeutic interventions focusing on helping these adolescents find or develop meaning in their lives can significantly improve their general well-being.

The second hypothesis that there would be a significant negative association between search for meaning in life and social isolation was confirmed. The analysis demonstrated that search for meaning was a significant positive predictor of social isolation among adolescents living with HIV, indicating that increase in search for meaning was associated with high social isolation among adolescents living with HIV. This suggests that as these adolescents intensely seek meaning or purpose in their lives, feelings of isolation concurrently increase. The Trauma Theory provides additional insights. Adolescents living with HIV might have experienced their diagnosis as a form of trauma, profoundly impacting their identity, worldview, and psychological well-being. In their journey to reconcile this trauma and find meaning in their lives, the pervasive feelings of being different, stigmatized, or facing life-altering challenges can increase their feelings of isolation from peers and society. This supports the work of Li et al (2022) who is of the same view.



In sum, the findings highlight the intricate relationship between the search for meaning and feelings of isolation among adolescents living with HIV. It becomes evident that while finding meaning can be a source of resilience, the unrelenting search, especially amidst challenging circumstances, can exacerbate feelings of isolation. This calls for tailored interventions and supportive measures to guide these adolescents in their search for meaning, ensuring they do not feel further alienated in the process.

Thirdly, the analysis demonstrated that eco-anxiety was a significant negative predictor of social isolation among adolescents living with HIV, indicating that increase in eco-anxiety was associated with low social isolation among adolescents living with HIV. This supports the findings of Hajek and Konig (2022) who reported a negative association in their own study. Furthermore, eco-anxiety, while typically perceived as a stressor, has, in this study, emerged as a possible connector among adolescents living with HIV. This is significant for environmental and community-based organizations. By creating platforms for these adolescents to engage in environmental advocacy or share their eco-anxiety experiences, they can find a sense of belonging and reduce feelings of isolation.

To understand this counterintuitive finding, the Cognitive Appraisal Theory (1984) offers some insights. Adolescents living with HIV might already be facing existential concerns stemming from their diagnosis. The presence of eco-anxiety, which pertains to concerns about environmental degradation and the future of the planet, might provide these adolescents with a shared concern that many of their peers also feel. This shared anxiety over the environment could act as a bridge, connecting them with their peers and reducing feelings of isolation. They are no longer isolated by their HIV status alone but are part of a broader community of individuals concerned about environmental issues.

Furthermore, drawing from Social Cognitive Theory (1991), individuals learn and form perceptions through observations and interactions within their environment. Adolescents living with HIV, already accustomed to grappling with significant life concerns, might find a sense of community and purpose in environmental advocacy or shared eco-anxiety experiences, thereby reducing feelings of isolation. Engaging in environmental concerns might provide them with a platform to interact, connect, and find solidarity with others, alleviating feelings of being 'different' or 'isolated' due to their HIV status.

However, it's essential to differentiate between the search for meaning, as postulated in the hypothesis, and the results concerning eco-anxiety. While the study aimed to understand the relationship between the search for meaning and social isolation, the findings related to eco-anxiety emphasize the need to consider multifaceted psychological dimensions and external concerns that might impact the well-being of adolescents living with HIV.

In conclusion, the findings offer a fresh perspective on the intricate dynamics of meaning in life, eco-anxiety, and social isolation among adolescents living with HIV. The implications emphasize the necessity for multi-dimensional interventions that not only address the intrinsic quest for meaning but also recognize external concerns like eco-anxiety as potential areas for fostering connection and reducing isolation.

Limitations of the study

While this study offers significant insights into the roles of meaning in life and eco-anxiety on social isolation among adolescents living with HIV, it is crucial to recognize its limitations.

First and foremost, the study employed a cross-sectional design, which poses challenges in determining causal links between the variables. A more longitudinal approach, tracking the same set of adolescents over a period, would provide a richer understanding of the dynamics and the evolution of their feelings related to meaning in life, eco-anxiety, and social isolation. Experimental designs, where possible, might also elucidate more direct causal relationships.



Secondly, the study was delimited by the specific demographic variables it emphasized, focusing primarily on factors like age, gender and duration since diagnosis. Potentially influential demographic variables, such as, socio-economic status, cultural backgrounds, and the exact nature of their medical histories, were not extensively explored. While the emphasis was on their HIV status and experiences related to meaning in life and eco-anxiety, these other variables could provide layers of nuance to the study's outcomes.

Recommendations

Building on the findings of this study, future research has a fertile ground to explore the relationships surrounding meaning in life, eco-anxiety, and social isolation, especially among adolescents living with HIV. Some of the potential areas for investigation include:

Role of Support Systems, one essential avenue for research would be to delve deeper into the role of familial and social support systems in moderating the feelings of meaning in life and eco-anxiety among adolescents living with HIV. By understanding how these external support structures influence internal perceptions, tailored interventions can be developed to reinforce these support mechanisms.

Diverse Cultural Contexts: The cultural and regional contexts can significantly influence how adolescents process their experiences and feelings. Future studies can focus on diverse cultural or geographical settings to understand any unique dynamics that come into play and whether they align or deviate from the findings of the present study.

Conclusion

The findings offer a fresh perspective on the intricate dynamics of meaning in life, eco-anxiety, and social isolation among adolescents living with HIV. The implications emphasize the necessity for multi-dimensional interventions that not only address the intrinsic quest for meaning but also recognize external concerns like eco-anxiety as potential areas for fostering connection and reducing isolation.



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