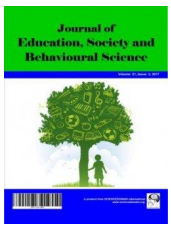

Journal of Education, Society and Behavioural Science

26(3): 1-11, 2018; Article no.JESBS.38900
ISSN: 2456-981X
(Past name: British Journal of Education, Society & Behavioural Science, Past ISSN: 2278-0998)

The Relationship between Perceived Social Support and Psychological Well-being among HIV/AIDS Patients

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Authors' contributions

This work was carried out in collaboration between both authors. Author KB designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author NS managed the analyses of the study. Author NS managed the literature searches. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JESBS/2018/38900
Editor(s):
(1) Kailash Gupta, Division of AIDS, NIAID, NIH, USA.
(2) Jose Eduardo Serrao, Professor,Department of General Biology, Federal University of Viçosa, Brazil.
(3) Jyotsana Shukla, Assistant Professor, Amity Institute of Behavioral and Allied Sciences, Amity University, Uttar Pradesh, India.
Reviewers:
(1) Tuntufye S. Mwamwenda, University of Mpumalanga, Mbombela, South Africa.
(2) Sabdat Ozichu Ekama, Nigerian Institute of Medical Research Yaba, Lagos, Nigeria.
(3) Ketan Vagholkar, D.Y.Patil University School of Medicine, India.
Complete Peer review History: http://www.sciencedomain.org/review-history/25868

Original Research Article

Received 19th December 2017
Accepted 8th August 2018
Published 13th August 2018

ABSTRACT

HIV/AIDS poses multidimensional and devastating problems. Thus, current study sought to investigate the association between perceived social support and the psychological wellbeing among HIV patients atTesfaBerhan Charity Association.Correlational research design with quantitative method was carried out on 162 HIV/AIDS patients who were selected through stratified sampling technique. The stratification was based on gender. In order to collect the data, Multidimensional Scale of Perceived Social Support (MSPSS) and Ryff's Psychological Well being Scale (SPWB) was employed. Descriptive statistics such as mean, standard deviation, minimum and maximum scores; and inferential statistics including Pearson Correlation Coefficient was also computed. Accordingly, the result of this study showed that the mean score of perceived social support 43.08 with the standard deviation of 17.85. Moreover, this study revealed that the mean

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score of overall psychological well-beingamong HIV patients was found to be 75.20 with the SD of 12.574, which was interpreted as low psychological well-being. Pearson correlation was found a strong positive relationship (r=.756) between total psychological well being and total perceived social support.Health workers, counselors and other professionals who work with HIV patients may consider further interventions to promote psychological well being in HIV/AIDS-positive individuals. More attention should be paid to the social environment of individuals diagnosed with HIV as the quality of social relationships may be particularly important for successful psychological adaptation to HIV/AIDS.

Keywords: Psychological well-being; perceived social support, HIV/AIDS.

1. INTRODUCTION

HIV/AIDS not only affects the immune system, it also affects one's psychological well-being. The previous study revealed that HIV/AIDS affects the quality of life of People Living with HIV/AIDS (PLWHA). The discrimination and stigmatization following disclosure of HIV status is one of the factors that affect quality of life of PLWHA [1,2,3,4]. Other problems include guilt, self-blame and expensive medical costs. They all affect HIV patients and as a result, mental problems such as depression inevitably manifest [5].

Diagnosis of HIV/AIDS infection often brings feelings of guilt from the possibility of infecting the other people or from the previous way of life which led to the infection. There is also a feeling of responsibility of what disease brings to people in one´s own family, especially children. Previous events that caused pain or sadness of others remained unresolved, and can reoccur and cause the patient even greater feelings of wrong doing. Rejection of colleagues, relatives and loved ones and often people can very quickly lead to loss of self-esteem and social identity, which leads to the feeling of one´s own worthlessness. This condition can be aggravated by worsening of symptoms accompanying the disease, e.g. facial disfigurement, deteriorating body, loss of strength as well as loss of control over one's body [6,7,3].

After being diagnosed with HIV, the majority of people tend to be depressed, anxious and have a sense of losing hope in the future. They also experience, anger, self blame, resentment and discrimination by community members and these experiences influence their psychological well being significantly. The available evidence strongly suggests that limited access to sexual and reproductive health information and services, insufficient knowledge about HIV, and a lack of empowerment to act on available knowledge significantly affect the spread of HIV and the psychological well-being after diagnosis [8,9,10,11]. Psychological symptoms suggests that people living with HIV/AIDS experience significant distresses such as high levels of fear, worries, depression, and anxiety. In other words the psychological well being of HIV patients is under a serious threat and this affects the lives and adjustment of HIV patients [5]. They also live with self-stigma, the feeling that other people seeing them can know that they are HIV infected [12,3,1,2].

The HIV/AIDS epidemic has fostered several responses in society which include prejudice, fear, and even in some occasions, hysteria. AIDS-related stigma poses threats to the psychological well-being of patients. Consequences of HIV/AIDS-related stigma includes the deterioration of interpersonal relationships; the manifestation of negative emotions; anxiety; depression; guilt; loss of support; isolation; difficulties with family dynamics; emotional or physical violence, and the deterioration of relations with health care providers [13,4].

HIV/AIDS poses multidimensional and devastating problems. Among the others is mental health problem. Especially, society in which stigma and discrimination are persistent, HIV/AIDS related mental problems are worse. Even though, today, many people seem to be aware of HIV/AIDS and there is good provision of care and support for patients, it is difficult to say that everyone at every place has good approach and positive attitude toward patients. People including family members still have negative attitude and discriminatory behavior against those patients, at least implicitly [14]. Despite advances in clinical science, those infected with HIV continue to experience high levels of discrimination and stigmatization in the communities where they live [15], amongst

other health-related stressors and challenges [16]. Stigmatization or the experience of discrimination to the extent that normal social life is disrupted, can have a profound impact on the lives of HIV patients, as the experience can affect their mental health [17].

In such conditions social support for HIV patients would be very low which in turn affects the psychological well being of HIV patients negatively. U.S. Department of Health and Human Services, perceiving less or total absence of social support is one of the conditions that worsen the psychological impact of HIV/AIDS. Lack of support in any way usually leads to depression or other psychological distress. [18] also found that there is a greater association of one's HIV status and suicide ideation. He further indicated that those people who had suicidal ideation perceived to have received less social support from family and friends. On the other hand, perceiving the availability of social support from society generally, and from family, friends and significant others particularly, enhances the psychological well being of PLWHA and this in turn helps the patient to cope with stressful situation [19].This study also aimed to study the relationship between perceived social support and psychological well being of HIV patients.

Care and support for people living with HIV/AIDS is an issue of great importance for quality of life, treatment success and HIV prevention. Evidence suggests that access to care and support is associated with psychological well-being and it also reduces HIV risk behavior among patients [20,4,21]. Family support, very important among other supports, has a positive effect on medical and treatment decisions and with family relations, hope, and the person's attitude towards life in general. There is a wide range of family support projects for patients including financial assistance, daily routine activities, medical assistance, and psychological support. Social support can also be divided into emotional support which nurtures a sense of belonging and personal worth; informational support which increases awareness and knowledge; and instrumental support, which is practical assistance with daily living [14,19]. Perceived social support, as performing both instrumental and expressive functions for the individual, provides social integration, nurturance, alliance and guidance, and fosters feelings of worth and intimacy [22].

[23] stated that HIV patients have an increased need for social support in comparison to people with other chronic illnesses because they tend to exhibit worse physical and emotional health. Their perception of available social support also can affect their health [1,3]. For example, decreased perceived support has been linked to increased depression, and a decreased sense of control in managing the illness. HIV patients also need support to manage the effects of HIV and AIDS stigma in addition to the support needs associated with these illnesses. Understanding and fighting the effects of stigma on patients is necessary to address their support needs successfully [23].

Previous researchers investigated the relationship between perceived social support and psychological well being of people living with HIV/AIDS. But no one of these studies take psychological well-being in its broad sense; rather they had been explaining it in terms of one or few components of psychological well-being such as depression, anxiety, stress, self image, self esteem, self worth and mood, quality of life, mood disorder, distress/adjustment problem [24,25]. These components are more of ill being or the negative experiences of human being. The positive functioning, potentiality and capacity of human being, including patients, to cope with stressors (such as HIV/AIDS) and sustain to live was overlooked. This necessitates the application of multiple dimensions of psychological well-being which were well-mapped and well-measured and designed to measure the positive psychological functioning of human being [26,27,28].

Perceived social support to be more significant in relation to health behaviors than was actual social support. Their rationale for this finding is that if the resources of support are not perceived as being present by an individual, they cannot be utilized. This theory is supported in a number of studies which it has been found that perceived social support was more influential than actual social support for establishing a level of well-being and life satisfaction [29].

For a more differentiated and comprehensive understanding of the contemporary effects of HIV/IDS on psychological well-being, it is worthwhile to consider several dimensions of psychological well-being, as the effect of HIV/AIDS on one's life is also multidimensional.

This study evaluated the psychological well-being of HIV patients in terms of six dimensions of psychological well-being namely, self acceptance, positive relation with other, autonomy, environmental mastery, purpose in life and personal growth in relation with perceived social support. While reviewing the related literature of this research topic, the researcher has not come across the research conducted in our country exactly on the same topic, especially considering the positive psychological functioning or well being in its broad (multidimensional sense) in relation with multidimensional perceived social support. Accordingly, the objective of this study was to examine the relationship between perceived social support and psychological well-being among HIV patients at Fitche Tesfa Birhan Charity Association, Oromia National State, Ethiopia

2. METHODS AND MATERIALS

Correlational research design was carried out on 162 HIV patients at Tesfa Birhan Charity Association, Oromia National State, Ethiopia. Estimated HIV prevalence among people 15-49 years in Ethiopia is 1.1% and there is reports of it surging recently. About fifty-five thousand children are estimated to be orphans due to HIV/AIDS [12]. About 15% of the population live below the poverty line. Thus HIV infection poses great risk to receiving care and treatment. Tesfa Birhan Charity Association provides care and support to PLWHAs in Fitche town administrative unit which falls in the Oromia region (state). It is 115 km away from the capital city: Addis Ababa.

The total population of the present study was 280 (103 were male and 177 were female respondents) PLWHA. Stratified probability sampling technique was employed. The stratification was based on gender, which were male and female HIV patients. Sample size was calculated using the following formula [30].

$$S= x^2 NP (1-p) \div d^2 (N-1) + x^2 p (1-p),$$

where:

s = Required sample size.
X^2 = The table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).
N = The population size.
P = The population proportion (assumed to be .50 since this would provide the maximum sample size).
D = The degree of accuracy expressed as a proportion (.05).
S = 3.841) x280x0.5 (1-0.5) ÷ $(0.05)^2$ (280-1) +3.841x0.5 (1-0.5) =162

After the sample size was determined, population was divided in to two strata based on gender (male stratum and female stratum). Male stratum contains 103 members while female stratum contains 177 members. Finally stratified random sampling formula was used to select proportional number of males and females from their respective stratum.

Females = 177/280*162= 102; males= 103/280 * 162 = 60.Therefore the sample size of the study would be 102+60 = 162

Standardized questionnaires were adopted to collect the information regarding perceived social support and Psychological well being .Accordingly Multidimensional Scale of Perceived Social Support (MSPSS) and Ryff's Psychological Well being Scale (SPWB) were employed to collect information concerning perceived social support and psychological well being of PLWHA respectively.

Ryff's scales of Psychological Well-being is designed to measure six theoretically motivated constructs of psychological well-being: autonomy – independence and self-determination; environmental mastery – the ability to manage one's life; personal growth – being open to new experiences; positive relations with others– having satisfying high quality relationships; purpose in life – believing that one's life is meaningful; and self-acceptance – a positive attitude towards oneself and one's past life. Versions with different numbers of items have been applied in a variety of settings and samples. For this study 18 items (3 per dimension), which has been widely used was employed. Items were measured on 6-point Likert-type scale from 1 'never' to 6'every time'

The Multidimensional Scale of Perceived Social Support (MSPSS) was developed to measure perceived social support. It is easy to administer, self explanatory and time effective scale. The MSPSS is a 12-item scale, self-report instrument. It measures individuals social support from three specific areas namely family, friends, and significant others. Each of the 3 areas has 4 subscales. Items were measured on 7-point Likert-type scale from 1 'never' to 7 'every time'. The MSPSS evaluates perceived social support (PSS) from family (FA), friends

(FR), and significant others (SO) and quantifies the degree to which respondents perceive support from each of these three sources, namely FA, FR and SO.

Informed consent was obtained from the participants before the survey. Respondents were asked whether they were willing to participate in the study after they were fully briefed about the purpose and objectives of the study. As majority of the respondents were not able to read properly, the consent form was read to them by the interviewer. Respondents were informed of their right of withdrawal at anytime from participating in the study. In addition the researcher also assured that any one of participant's identity would be kept anonymous and confidential. They were also informed that the study had no harm or danger on them. HIV care and services including counselling and other social support were provided by the Tesfa Birhan Charity Association. The interviewers did not educate about HIV and if any of the respondents had any doubts about HIV or related issues they were directed to approach the appropriate health personnel.

The data collected were analyzed with SPSS version 20. Univariate, bivariate and multivariate analysis were carried out to understand the relationship between perceived social support and psychological wellbeing among the HIV patients receiving care at Tesfa Birhan Charity Association,

3. RESULTS

i. Demographic Characteristics of the Respondents

The study solicited information from participants based on their sex, age and marital status.

Table 1 indicates that respondents were composed of 60 (37%) males and 102 (63%) females. This indicates that the number of female respondents is nearly as twice as the number of male respondents. On the other hand respondents were divided in to four age groups which include: adolescent (12-20 years old) accounts for 6 (3.7%); young adulthood (21-39 years old) accounts for85 (52.5%); middle adulthood group(40-59 years old) accounts for 69 (42.6%); and late adulthood (60 and above years) accounts for 2 (1.2%). So the result indicates that the majority of respondents fall under age group of young adulthood followed by middle adulthood (the two group alone accounts for more than 90% of total respondents. This ensures the idea that HIV/AIDS affects young and productive social class.

Regarding marital status of respondents, single persons account for 20 (12.3%), married persons account for 86 (53.1%), and divorced persons account for 32 (19.8%) and widowed persons account 24 (14.8%). The result shows that more than fifty percent of the respondents were married; followed by divorced and widowed ones. The smallest number of respondents was accounted for by single persons. What one can understand here is that considerable number of respondents were divorced or widowed, which might be either the cause or the consequence of HIV/AIDS infection.

Regarding educational level of respondents, table (1.3) indicates that persons who can't read and write account for 36 (22.2%); those who learnt grade 1-4 account for 38 (23.5%) and those who learnt grade 5-8 account for 48 (29.6%). Again those who learnt grade 9-12 accounts for 34 (21.0%) while persons whose education level is Certificate and above account 6 (3.7%). This indicates that relatively large

Table 1. Socio-demographic characteristics of the respondents under the study (N=162)

Variables	Categories	Frequency	Percentage
Sex	Male	60	37
	Female	102	63
Age	12-20	6	3.7
	21-39	85	52.5
	40-59	69	42.6
	60 and above	2	1.2
Marital status	Never married	20	12.3
	Married	86	53.1
	Divorced	32	19.8
	Widow	24	14.8

number of respondents fall in group of persons who learn from grade 5 to grade 8.

Another demographic variable is employment status of respondents and its composition is as follows. Unemployed persons account for 44 (27.2%); daily laborer persons account for 14 (8.6%); governmental employee persons account for 4 (2.5%); nongovernmental employee person account for 26 (16.0%) and persons engaged in Private Business account for 74 (45 %). Based on their monthly income respondents were categorized in to five groups. This includes those who earn ≤150 Ethiopian birr per month account for 37 (22.8%); 151-650 Ethiopian birr per month account for 81 (50.0%); 651-1400 Ethiopian birr per month account for 21 (13.0%); 1401-2350 Ethiopian birr per month account for 17 (10.5%) and those who earn 2351-5000 Ethiopian birr per month accounts for 6 (3.7%). This shows that majority of respondents in this research earn less than or equal to 650 Ethiopian birr per month.

ii. Scores of Perceived Social Support

In this section, the calculated mean and standard deviation scores of total perceived social support and its sub-scales (family support, friends' support and significant others support) are presented in Table 3.

Table (2) reveals that respondents perceived almost equal family support (FA): (M = 16.19, SD =9.236) and friends' support (FR): (M = 16.12, SD = 8.609). Significant others support assumes the next position (M = 10.77, SD = 7.553). The mean and standard deviation of total perceived social support was 43.08 and 17.850 respectively. Respondents who reported below the mean score of PSS account for 72(44%) while those who reported above the mean score of PSS account for 90(56%). This indicates that respondents who reported above the mean score of PSS outnumber those who reported below the mean score of PSS. This indicates that larger number of respondents perceived that they have relatively better social support.

iii. Scores of Psychological Well Being

In this section, the calculated mean and standard deviation scores of total psychological well being and its sub-scales (Autonomy, Environmental Mastery, Personal Growth, Positive relation with Others, Purpose in Life and Self Acceptance) are presented in Table 3.

Respondents reported relatively higher score in personal growth (M = 13.00, SD = 3.651) and autonomy (M=13.00, SD=3.651). Positive relation with other (M=12.68, SD=3.517) assumes the second place followed by self acceptance (M=11.85, SD=3.142) and environmental mastery (M=11.44, SD=3.540). The mean and standard deviation of the total psychological well being was 75.20 and 12.574 respectively. Respondents who reported below the mean score of PWB account for 71(43.83%) while those who reported above the mean score of PWB account for 91(56.17%). This indicates that respondents who reported above the mean

Table 3. Descriptive statistics of perceived social support among HIV patients (N=162)

Variables	M	SD	Min	Max
Total Perceived Social Support	43.08	17.850	12	80
Perceived significant others' support	10.77	7.553		
Perceived Family support	16.19	9.236		
Perceived Friends' support	16.12	8.609		

Table 4. Descriptive statistics of total psychological well being and particular dimensions of psychological well-being among HIV patients (N= 162)

Variable	M	SD	Min	Max
Overall Psychological Well-being	75.20	12.574	44	103
Autonomy	13.00	3.651		
Environmental Mastery	11.44	3.540		
Personal Growth	13.60	3.318		
Positive relation with others	12.68	3.517		
Purpose in life	12.62	2.859		
Self Acceptance	11.85	3.142		

score of PWB outnumber those who reported below the mean score of PWB. Nonetheless, considerable numbers of respondents have reported below the mean score in psychological well being.

iv. The Correlation between PSS and PWB of PLWHA?

Pearson product-moment correlation coefficient was computed to assess the relationship between total psychological well being, psychological well being dimensions (autonomy, Environmental mastery, personal growth, positive relation with others, purpose in life and self acceptance), total perceived social support and its components (family support, friend support and Significant others support).

Results that are summarized in Table (4) indicate that there was strong positive correlation between subscales of psychological well being (Autonomy, Environmental Mastery, Personal Growth, Positive Relation with Other, Purpose in Life and Self Acceptance) and subscales of perceived social support (Family, Friends and Significant others) that ranging from .187 (between PR and SO) to .528 (between PG and FR). Similarly subscales of PWB positively and strongly correlated with total perceived social support (PSS) ranging from .350 (between PR and PSS) to .569 (between SA and PSS). Likewise PWB has strong positive correlation with factors of perceived social support: .464 with SO; .504 with FA and .620 with FR. The correlation between total psychological well being (PWB) and total perceived social support (PSS) was positive and strong (.756). The table also reveals the correlation between sub-factors of PWB that range from .16 (between PG and EM) to .569 (between EM and AU); with the exception that there is positive weak and insignificant correlation between PR and EM (.057) and between PR and AU (.080). Subscales of perceived social support have positive significant correlation between each other and with PSS: .283 (between FR and FA), .227 (between FR and SO), .198 (between FA and SO), .725 (between PR and PSS), .738 (between FA and PSS) and .635 (between SO and PSS). Generally, there is strong positive correlation between perceived social support and psychological well being of HIV patients (as perceived social support of HIV patients increases the psychological well being of HIV patients will also increase. But this does not mean that the increment of perceived social support causes the increment of psychological well being.)

4. DISCUSION

There is highly significant positive correlation between perceived social support and psychological wellbeing. The components of social support and psychological wellbeing when taken individually also showed significant positive correlation. Social ties play a beneficial role in the maintenance of psychological wellbeing. Chronic illnesses and stigmatization surrounding an illness causes intense stress and leads to psychological distress and depression [31,22,32]. Concerns about deteriorating physical health, stigma, financial and family concerns among others affected the psychological wellbeing of HIV infected persons. Women were seen to experience higher levels of stress, depression and anxiety than males [39]. Social support also has implications on seeking treatment and continuing in care [33,34].

Respondents perceived almost equally family support (FA) and friends' support (FR) Significant others support assumed the next position. This might be the reflection of respondents' culture: in which families and friends are the main sources of support when compared to support from significant others. In Ethiopia, most of the time people seeks help from family and their friends, and families tend to take responsibility for their sick family members [4]. HIV stigma continues to affect social support and discriminatory treatment of the patients [35,36]. In this context, the support received from family and friends is significant.

Respondents who reported below the mean score of perceived social support account for 72(44%) while those who reported above the mean score of psychological wellbeing account for 90(56%). Majority of the respondents perceived that they have relatively better social support and similarly reported more than average psychological wellbeing. A longitudinal study carried out in five African countries showed that perceived HIV stigma affected life satisfaction of persons living with HIV [3]. The possible reason for the considerable number of respondents to report perceived social support lower than mean score might be due to the fact that PLWHA feel socially isolated and have

Table 5. The correlations matrix PSS and PWB (N = 162)

	PWB	PSS	SA	PL	PR	PG	EM	AU	FR	FA	SO
PWB	*1*										
PSS	.756**	*1*									
SA	.639**	*.569***	*1*								
PL	.556**	*.447***	*.292***	*1*							
PR	.485**	*.350***	*.184**	*.240***	*1*						
PG	.667**	*.622***	*.313***	*.200**	*.249***	*1*					
EM	.717**	*.405***	*.469***	*.246***	*.057*	*.16***	*1*				
AU	.675**	*.457***	*.186**	*.223***	*.080*	*.414***	*.545***	*1*			
FR	.620**	*.725***	*.524***	*.390***	*.348***	*.528***	*.270***	*.299***	*1*		
FA	.504**	*.738***	*.378***	*.255***	*.199**	*.429***	*.314***	*.312***	*.283***	*1*	
SO	.464**	*.738***	*.286***	*.303***	*.187**	*.345***	*.265***	*.356***	*.227***	*.198**	*1*

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

Note, PWB = total Psychological Well Being; PSS = Perceived Social Support; SA = Self Acceptance; PL = Purpose in Life; PR = Positive Relation with Others; PG= Personal Growth; EM = Environmental Mastery; AU = Autonomy; FR = Friends; SO = Significant others; FA= Family

Table 2. Educ. level, employment status and monthly income level of participants (N= 162)

Variables	Categories	Frequency	Percentage
Educational level	Can't read and write	36	22.2
	Grade 1-4	38	23.5
	Grade 5-8	48	29.6
	Grade 9-12	34	21.0
	Certificate and above	6	3.7
Employment status	Unemployed	44	27.2
	Daily laborer	16	8.6
	Governmental employee	4	2.5
	Non-governmental employee	26	16.0
	Private business	74	45.7
Monthly income	0-150	37	22.8
	151-650	81	50.0
	651-1400	21	13.0
	1401-2350	17	10.5
	2351-5000	6	3.7

Note, Education level of respondents was divided in to five groups based on the current. Educational Policy of Ethiopia so that it would be clear and easily understood. Similarly the monthly income level of respondents was divided in to six groups based on the employee's income tax system of Ethiopian. (Ethiopia Fiscal Guide 2012/13)

negative perceptions of their social relationships [35]. This process may be aggravated by internalized HIV-related stigma and discrimination, which has been described as an emotional reaction to the many different layers of overt HIV-related stigma people living with HIV have to face. It can therefore be implied that a lack of positive social relationships leads to low level of perceived social support, which in turn is assumed to lead to lower level of psychological wellbeing.

5. CONCLUSIONS

The results of this study reveal that, slightly more than 50% of respondents reported above mean score of perceived social support and psychological well being. The number of respondents who reported less than mean score of PSS and PWB were considerable. This indicates that even if respondents who reported less than mean scores of PSS and PWB is little less than those who reported greater than mean scores of PSS and PWB, still many People living with HIV/ AIDS are subjected to have lower perceived social support and low psychological well-being. This might be due to the negative attitude of society towards HIV/AIDS patients and perceived stigma of patients, whose consequences affect the psychological well being of PLWHA negatively.

6. RECOMMENDATION

Based on the results of this study the following recommendations are suggested:

If organizations, institutions, professionals and individuals, including HIV patients, organize their effort and combat maltreatment and discriminatory behavior of the society, it can improve social support and reduce stigmatic perception of HIV and AIDS. .

- It is better if service-providers assess their perception of HIV patients as well as existing social support from time to time and work on strengthening and widening the scope of social support among HIV patients themselves, and between HIV patients and the society.
- It would be advisable for families, relatives, caregivers, friends and other associates of HIV patients to understand the positive impact of perceived social support on psychological-wellbeing of HIV patients and provide them with appropriate social support.
- It would be better if health professionals, social workers, psychologists and psychiatrists work on promoting psychological well being of HIV patients through making their relation with HIV

patients smooth and friendly while providing proper services.

- It would be worthwhile for HIV patients to organize themselves into self help groups or other likeminded network groups so that they would able to provide each other with needed financial, emotional and other social supports.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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