Post-Traumatic Stress Disorder and Perceived Stress among Economically Deprived Women in Addis Ababa

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Abstract

The study aimed to explore whether posttraumatic stress disorder (PTSD) symptoms, perceived stress, social support, and sense of meaning in life are interrelated among economically deprived adult women. A cross-sectional correlational design was used; participants were selected through homogenous purposive sampling, and data were collected from 118 women through a questionnaire administered as an interview. Results indicated that 55.9% of the participants did not meet the PTSD criteria. In contrast, 26.2% and 15.5% of the participants showed mild and moderate PTSD symptoms, respectively, while 2.5% showed severe PTSD symptoms. Perceived stress was positively related to PTSD (r = .475, p < .001), while it was negatively related with perceived social support (r = -.409, p < .001). In addition, PTSD symptoms were found to be significantly prominent among women who had experienced sexual assault than those who had not (t(116) = 2.84, p = .005), as well as among women who experienced physical assault than who had not (t(116) = 2.37, p = .019). Moreover, perceived general health status significantly predicted PTSD (b = -2.79, t(115) = -2.13, p < .05). In contrast, perceived social support and perceived general health status significantly predicted perceived stress (b = -.16, t(115) = -4.78, p < .001 and b = -1.4, t(115) = -2.72, p < .05 respectively). The research findings confirm that PTSD symptoms and perceived stress have a positive association; stress is linked with indicators of the sense of meaning in life; social support is a buffer for stress and PTSD, and social support contributes to a higher meaning in life.

Keywords: *Post-Traumatic Stress Disorder, Perceived Stress, Social Support, Meaning in Life, Economically Deprived Women.*

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Introduction

Trauma can lead to the development of different psychopathological disorders or problems. Psychological trauma is characterized as a single incident, series and/or collection of events that a person perceives as mentally and physically harmful or life-threatening and has long-term negative implications for the person's functionality and psychosocial or spiritual well-being (Center for Substance Abuse Treatment,2014). Trauma may have several adverse effects on an individual's health, including acute traumatic stress responses, alterations in the appraisal, intensified tension and emotion issues, and the occurrence of psychiatric illnesses such as anxiety, depression, and posttraumatic stress disorder (PTSD, Ford et al., 2015).

Life-threatening stressful events can cause PTSD. Fortunately, many people exhibit resilience and healing following traumatic events. According to Bisson et al. (2015), only about 3% of adults who experienced traumatic events develop PTSD throughout their lives. However, in conflict-affected countries, this rate doubles. Further, the rate dramatically increases for survivors of sexual harassment and rape, with 50% of survivors developing PTSD (Bisson et al., 2015). Exposure to physical and sexual abuse develops the consequence of momentarily and lasting psychopathological disorders, including PTSD. It is also reported that sexual and physical abuse has a significant correlation with symptoms of PTSD among women survivors (Hetzel &McCanne, 2005).

Elevated PTSD risk has also been reported to be significantly linked to socioeconomic factors. Poverty, for instance, relates to a person's lack of access to housing, healthcare, social engagement, jobs, and education, as well as their potential vulnerability to street crime, substances, high crime, and other stressors (Ford et al., 2015). The consequences of other chronic stressors, such as social disaffiliation,

income instability, and exposure to abuse, have also been suggested as possible explanations for understanding the poorer mental health outcomes reported in deprived communities, such as the homeless(Irwin et al., 2008). Reports also suggest that individuals who have lived through homelessness show PTSD symptoms and a much higher rate of stressful life experiences than the general population (Schiff, & Lane, 2019; Tsai et al., 2020). Moreover, perceived stress is reported to have a significant relationship with PTSD (Zhang et al., 2021).

On the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), PTSD is diagnosed by a narrative of exposure to a traumatic event that exhibits symptoms from one of four symptom clusters: intrusion, avoidance, negative alterations in cognition and mood, and alterations in arousal and reactivity. The other criteria concern symptom duration, functioning; and clarification of effects due to a substance or co-occurring medical disorder (American Psychiatric Association, 2013). Other psychiatric disorders such as borderline personality disorder, mood disorder, drug use disorder, and anxiety disorder are psychological comorbidities of PTSD. According to Flory & Yehuda (2015), about half of those diagnosed with PTSD also meet the criteria for major depressive disorder. PTSD is also a significant risk factor for somatic disorders like coronary heart disease and stroke (Sumner et al., 2015).

Originally stress was defined by Hans Selye, who borrowed the term 'stress' from engineering as a generic phenomenon characterized by the integration of symptoms caused by a wide range of noxious stimuli (Szaboet al., 2017). Later, Lazarus and Folkman developed the Cognitive-Transactional model that describes stress as a phenomenon that occurs when the situation's demand restricts or exceeds individuals' abilities and coping mechanisms (Lazarus, &Folkman, 1986). The ways that individuals' life conditions are intensified and result in stress are termed perceived

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stress (Cohen et al., 1994). Elevated perceived stress significantly impacts the sense of well-being and is significantly associated with mental health issues, resulting in reduced perceived health status (The et al., 2015).

One of the primary resources to cope with stress is social support. Social support can be described as a support system that guides or aids an individual in time of need (Kreuzbauer& Chiu, 2008). It is indicated that improved social support can help people cope with stress and protect them from developing trauma-related psychopathological disorders (such as PTSD) and lower morbidity and mortality (Southwick et al., 2005). Conversely, lack of or insufficient social support can potentially affect mental health. For instance, socially isolated individuals were more likely to develop mental illness and stress-related disorders (Smith, & Christakis, 2008). Social support was also reported to be significantly related to meaning in life, whereby social support creates a sense of meaning while controlling stress (Dunn, & O'Brien, 2009).

Acquiring a sense of meaning can influence individuals' resilience to stressful life situations. Meaning in life can be defined as the purposes for existence that motivate goal-directed behaviour (Feldman & Snyder, 2005). The existentialist philosopher Viktor Frankl argued that individual functionality grows when s/he perceives a sense of meaning and purpose in life (Baumeister, 1991). This can be linked to the Post Traumatic Growth (PTG) development model, which suggests PTG happens only after the trauma is severe enough that survivors begin to make meaning of what has occurred (Tedeschi& Calhoun, 2004).

In many developing countries, mental health is an under-researched area. Poverty is assumed to result in deprived socioeconomic status, which leads to mismanagement of mental health. For instance, a study made in developing countries (including

Bosnia and Herzegovina, Indonesia, and Mexico, as well as from special surveys in India and Tonga) shows an association between mental health and socioeconomic characteristics. Individuals who are older, female, widowed, and report poor physical health are more likely to report worse mental health (Das, Friedman, & McKenzie 2009).

Severe poverty and lack of access are associated with psychological distress. For instance, research conducted in Latin America reported a statistically significant difference in the psychological distress level experienced by economically deprived and economically privileged populations. In the research, economically deprived populations showed greater psychological distress (Rojas,2011). There is also a strong link between psychological distress and poor mental health (Thoits, 2010). However, as numerous things influence people's psychological well-being, they cannot be determined solely based on their economic situation.

A number of studies have been conducted cross-culturally on street life, trauma, and stress (Phiri &Perron, 2012; Davies & Allen, 2017; Romeo, 2016). However, studies that address stress and mental health issues among economically deprived populations have yet to be sufficiently conducted in Ethiopia. The Ethiopian community has unique difficulties, coping strategies and support mechanisms that buffer against stress and related psychological problems. Instead of adopting western studies as they are, investigation of stress and related psychological problems in the Ethiopian context will promote a localized understanding of these issues and identification of context-specific interventions to address the problems.

Therefore, the current research aims to provide a local perspective on the experience of PTSD and stress among economically deprived women in Addis Ababa. It also aims to investigate the possible contribution of social support as a buffer for stress-

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related psychological problems. As the current research will not provide a complete localized picture of the study variables, it may also serve as a springboard for other researchers interested in investigating the study variables. The research may also lead to further research as it explores relevant issues, such as meaning in life, among economically deprived women..

Research questions

The current study aims to investigate the association between PTSD, perceived stress, social support, and meaning in life, and identify factors that may predict PTSD and perceived stress among economically deprived women. Following are the specific research questions.

1. Is there a correlation between PTSD, perceived stress, social support, and meaning in life?

2. Is there a group difference with respect to PTSD across women's experience of sexual abuse and physical assault?

3. Do perceived social support and perceived general health status predict PTSD and perceived stress?

Method

A cross-sectional correlational design was selected to assess potential relationships between the study variables (PTSD, perceived stress, social support, and meaning in life). A survey was conducted to collect data from 118 participants. A cross-sectional method was used to study participants at the same time. A correlational research design was selected as it is best suited to explore the relationship between two or

more variables. A quantitative approach was employed to collect a large amount of data using questionnaires.

The population chosen for this research included economically deprived women in Addis Ababa. The target population was women identified as the 'poorest of the poor by the Addis Ababa KolfeKeranyo Sub-City and beneficiaries at Hope Meal Center, a feeding center in Addis Ababa. Individuals listed in the category of the 'poorest of the poor have extreme deprivation of necessities for living, such as food, clean drinking water, sanitation, health care, housing, education, and information(United Nations, 1995). In order to be selected for the current study, in addition to belonging to the group's poorest of the poor, participants must have experienced at least one traumatic event that could potentially cause psychological distress.

The research applied homogenous purposive sampling. Homogeneous purposive sampling is used when the research's focus has shared characteristics and when the research aims to assess a homogenous type of participants (Acharya& Prakash, 2013). This particular method was selected because the aim of the sampling was to select participants from a target population that share homogenous characteristics (e.g. being a woman and being economically deprived).

As part of the homogenous purposive sampling, the researchers used four inclusion criteria that should all be met to be included in the sample. The participants' gender must be female; the participants' age must be above age 18; the participant must be in a category of economically deprived persons identified by the KolfeKeranyo sub-city and a beneficiary of Hope Meal Center; the participants must have experienced at least one traumatic event that could potentially cause psychological distress. The last inclusion criterion was checked through the PDS-5 screening section, and potential participants who did not have any experience with trauma were not selected for the

final study sample. Therefore, the participants in the study sample were only representative of some economically deprived women in the selected sub-city of Addis Ababa.

Instruments

A standardized questionnaire was prepared and administered as an interview, as a large proportion of the target population was assumed to be unable to read and write. The questionnaire included socio-demographic questions and a set of standardized psychometric scales. The socio-demographic part contained questions on age, gender, educational background, marital status, occupational status, and a single-item measure of subjective health status.

The second part contained a total of four psychometric scales: the Posttraumatic Diagnostic Scale (PDS-5), The Perceived Stress Scale (PSS), The Multidimensional Scale of Perceived Social Support (MSPSS) and the Meaning in Life Questionnaire (MLQ). The Posttraumatic Diagnostic Scale (PDS-5) was used to measure PTSD (Foaet al., 2016). The scale has two sub-sections: trauma screening and PTSD diagnostic, and it meets the criteria of DSM-5. The PDS-5 contained 24 items that assess stress levels using the Likert scale ranging from 'none' to 'six or more times in a week.' Internal consistency of the PDS-5 was reported to be .95 (Foa et al., 2016).PDS-5 produces a score ranging from 0 – 96, and, in the current study, scores were interpreted as follows: 0 – 23: not experiencing PTSD (none), 24 – 47: experiencing mild PTSD, 48 – 71: experiencing moderate PTSD, and 72 – 96: experiencing severe PTSD.

The Perceived Stress Scale (PSS) was used to measure participants' levels of perceived stress experienced in the past month (Cohen et al., 1994). The scale has ten questions responded to through a 5-point Likert scale alternative: 0 (never) to 4 (very often). Internal consistency of .72 was reported for the scale (Cohen et al., 1994). The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) measured perceived social support from three sources: family, friends, and significant others. The MSPSS is a 12-item scale responded to through a seven-point Likert scale: from 'very strongly disagree' to 'very strongly agree.' The internal consistency of the scale was reported to range from .85 to .91 (Zimet et al., 1988). Finally, the Meaning in Life Questionnaire (MLQ; Steger et al., 2006) was used to measure participants' meaning in life. The MLQ contains ten items responded to through a 7-point Likert-type scale ranging from 1 ('absolutely true') to 7 ('absolutely untrue'). Its internal consistency ranges between .8 and .9 (Steger et al., 2006).

Validated Amharic language translation was available for MSPSS (Sisay, 2016). For the rest of the scales (PDS-5, PSS, and MLQ), translation and cross-cultural adaptation were performed based on the guideline developed by Beaton et al. (2000). This guideline prescribes five stages for transition and cross-cultural adaptation: forward translation, synthesis of the translations, back-translation, expert committee review, and pre-test.

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Four translators participated in the translation and cross-cultural adaptation process: 2 as forward translators and two as back translators. The forward translators were recruited from the School of Psychology. Back translators were kept blind to the original English language scales and recruited from Addis Ababa University. Furthermore, the expert committee included the four translators and the two researchers. A total of 30 female undergraduate students were selected due to their convenient accessibility and were provided with the pre-final Amharic versions of the scales for a pre-test. The expert committee formulated final Amharic versions of the scales, and internal consistencies were found to be .92 for PDS-5, .84 for PSS, and .71 for MLQ.

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Procedure

Data were collected from economically deprived women who, at the time of data collection, were beneficiaries of the Hope Enterprise temporary feeding program prepared for families affected by the COVID-19 pandemic. The questionnaire was administered as an interview for 118 women beneficiaries on four feeding sites in Addis Ababa, KolfeKeranio Sub-City, Weredas 01, 02, 03, and 05. In addition, data were collected from August 5 to September 4, 2020, at government schools that the Hope Enterprise uses as feeding sites. As the data collection was conducted during the COVID-19 pandemic, the procedure strictly adhered to the National Comprehensive Covid-19 Management Handbook of Ethiopia (Federal Ministry of Health, 2020) and the World Health Organization (2020a). The data collection procedure included three distinct stages: pre-interview (mainly following COVID-19 precautions), interview (consent, elaboration, and interviewing), and post-interview (referral for overly symptomatic cases).

Data analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). First, the Pearson correlation coefficient analyzed the relationship between the four variables (PTSD, perceived stress, social support, and meaning in life). Next, group differences were assessed using independent sample T-Test and ANOVA. Finally, regression analysis was used to test whether social support and perceived health status significantly predict PTSD and stress.

Ethical considerations

The proposed research was approved to be conducted in the organization by the Head Office of Hope Enterprise. On-site supervisors from the feeding center oversaw each

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interview session. Necessary ethical producers, such as anonymity, informed consent, and voluntary participation, were strictly implemented. Based on the outcome of the PTSD assessment, a client referral system was implemented for symptomatic participants. Accordingly, 17 participants were offered a referral service to psycho-diagnostic and counseling centers (with prior agreement) for further treatment, and participants accepted the offer.

Results

The participant's general background characteristics are presented in Table 1. 64% of the participants' age is from 25-39. Only 5.9% of the participants completed higher education, whereas 59.3% could not read and write.

Table 1. Socio-demographic characteristics of participants

Variable	Group	Frequency	Percent	CP
Age	18-24	8	6.8	6.8
	25-39	76	64.4	71.2
	40-59	23	19.5	90.7
	60-and-above	11	9.3	100
	Total	118	100	

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Education	*Unable to read and write*	*70*	*59.3*	*59.3*
	Elementary	*41*	*34.7*	*94.1*
	High school	*7*	*5.9*	*100*
	Total	*118*	*100*	
Marital Status	*Single*	*12*	*10.2*	*10.2*
	Married	*39*	*33.1*	*43.2*
	Separated	*45*	*38.1*	*81.4*
	Widowed	*22*	*18.6*	*100*
	Total	*118*	*100*	
Occupation	*Off-Street*	*33*	*28*	*28*
	On-Street	*85*	*72*	*100*
	Total	*118*	*100*	

Regarding subjective health status, 4.2% of the participants reported very bad subjective health status, while only 11% reported very good subjective health. In addition, only26.2 % 15.3% and 2.5% of the participants showed mild, moderate, and

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severe PTSD symptoms, respectively, while 55.9% did not meet the criteria for PTSD.

Table 2. Descriptive statistics of study variables

Variable	Group	Frequency	Percent	CP
Subjective Health	Very bad	5	4.2	4.2
	Bad	30	25.4	29.7
	Neutral	27	22.9	52.5
	Good	43	36.4	89
	Very good	13	11	100
	Total	118	100	
PTSD	None	66	55.9	55.9
	Mild	31	26.2	82.2
	Moderate	18	15.3	97.5
	Sever	3	2.5	100
	Total	118	100	

Note: Abbreviation: PDS-5: Posttraumatic Diagnostic Scale, CP: Cumulative Percentage.

The intercorrelation between PTSD, perceived stress, meaning in life, and perceived social support is summarized in Table 2. A positive relationship was found between PTSD and perceived stress ($r(116) = .475$ $p < .001$). Both PTSD and perceived stress were negatively associated with perceived social support ($r(116) = -.168$, $p = .069$ and $r(116) = -.409$, $p < .001$, respectively). Meaning in life showed an inverse relationship with perceived stress ($r(116) = -.355$, $p < .001$) and a positive relationship with social support ($r(116) = .248$, $p = .007$).

Table 3. Inter correlation between PTSD, perceived stress, meaning in life, and social support.

	PDS	PSS	MLQ	MSPSS
PTSD	1			
Perceived Stress	.475**	1		
Meaning in life	.017	-.355**	1	
Social Support	-.168	-.409**	.248**	1

Note: **. Significant at the .001 level (2-tailed). PTSD: Posttraumatic Stress Disorder

Group comparisons on the experience of PTSD were conducted among participants who experienced sexual assault and those who did not, as well as among those who experienced physical assault and those who did not (Table 3). Women who reported experience of sexual assault showed significantly higher levels of PTSD (M = 36.8, SD = 17.1) than those who did not experience sexual assault (M = 26.5, SD = 14.8; $t(116) = 2.84$, $p = .005$). Similarly, women who reported experience of physical assault showed significantly higher levels of PTSD (M = 39, SD = 21.7) than those who did not experience physical assault (M = 27.3, SD = 14.4; $t(116) = 2.37$, $p = .019$).

Participants were split into low, moderate, and high social support groups, and the low and high social support groups were compared to their experience of PTSD and perceived stress. Women with high perceived social support reported significantly lower PTSD (M = 24.8, SD = 14.6; t(80) = 2.08, p = .040) as well as perceived stress (M= 17.3, SD = 5.8; t(80) = 4.8, p < .001) than women who reported lower perceived social support (PTSD: M = 31.6, SD = 15.1, and PSS: M = 23.6, SD = 5.9). Participants were similarly grouped across reports of general health status, and participants who reported very good and bad health were compared to their reports of PTSD. Results indicated that participants who reported very good health status were found to have significantly lower levels of PTSD (M = 16.4, SD = 7.4) than participants who reported very bad health status (M = 28.8, SD = 8.6; t(16) = 3.02, p = .008).

Perceived social support was also found to vary across participants' marital status significantly (F(112,144) = 6.36, p < .001). Post hoc comparisons using the Tukey HSD test indicated that the married group (M = 46.2, SD = 15.6) reported significantly higher perceived social support than the separated group (M = 31.2, SD = 3.7, p < .001). Finally, meaning in life significantly varied across participant age groups (F(109,12) = 3.1, p = .030). Post hoc comparisons using the Tukey HSD test indicated that the 18-24 age group had marginally significantly higher meaning-in-life scores (M = 56.1, SD = 9.53) than the 60 and above age group (M = 39.7, SD = 12.7,p = .059).

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Table 4. Summary of group comparisons.

Variable	Grouping Factor	Group				Test statistic	P level
PTSD	Assault	Experienced		Not-experienced			
		M (*SD*)		*M* (*SD*)			
	Sexual	36.8(17.1)		26.5(14.8)		$t(116) = 2.84$	.005
	Physical	39(21.7)		27.3(14.4)		$t(116) = 2.37$	.019
PTSD	Perceived social support	Low		High		$t(80) = 2.08$	.040
		M(*SD*)		*M*(*SD*)			
		31.6(15.1)		24.8(14.6)			
		Very Bad		Very Good			
		M(*SD*)		*M*(*SD*)		$t(16) = 3.02$	.008
	Perceived health status	28.8(8.6)		16.4(7.4)			
Perceived stress	Perceived social support	Low		High		$t(80) = 4.8$	.000
		M(*SD*)		*M*(*SD*)			
		23.6(5.9)		17.3(5.8)			
Perceived social support	Marital status	Single	Married	Separated	Widowed		.
		M(*SD*)	*M*(*SD*)	*M*(*SD*)	*M*(*SD*)		
		39.9(21.8)	46.2(15.6)	31.2(13.7)	41(16.5)	$F(3,114) = 6.36$	.000
Meaning in life	Age	18-24	25-39	40-50	<60		
		M(*SD*)	*M*(*SD*)	*M*(*SD*)	*M*(*SD*)		
		56.1(9.5)	49.8(12.5)	43.3(18.9)	39.7(12.7)	$F(3,114) = 3.71$	.014

Note: PTSD: Post Traumatic Stress Disorder.

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Multiple linear regressions were conducted to investigate whether perceived social support and general health status could significantly predict PTSD and stress (Table 4). Results indicated that perceived general health status significantly predicted PTSD, b = -2.79, t(115) = -2.13, p < .05, with perceived general health status explaining a significant proportion of the variance in PTSD R 2= .065, F(2,110) = 4.01, p < .05. Perceived social support only marginally predicted PTSD, b = -.146,t(115) = -1.73, p = .086. Both perceived social support and perceived general health status significantly predicted perceived stress, b = -.16, t(115) = -4.78, p < .001 and b = -1.4, t(115) = -2.72, p < .05, respectively. Perceived social support and perceived general health status explain a significant proportion of the variance in perceived stress, R2 = .218, F(2,110) = 15.9, p < .05.

Table 5. Summary for regression analysis

DV	IV	B	SEB	b	*P*Value	*R²*
PTSD	(Constant)	43.660	5.4		.000	.065
	Social Support	-.146	.084	-.157	.086	
	Perceived general health status	-2.79	1.31	-.192	.035	
Perceived stress	(Constant)	31.92	2.08		.000	.218
	Social Support MSPSS	-.16	.033	-.395	.000	
	Perceived general health status	-1.4	.514	-.225	.007	

Note: PTSD: Post Traumatic Stress Disorder

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Discussion

One of the main purposes of this study was to identify potential associations between PTSD, perceived stress, social support, and meaning in life among economically deprived women. Overall, the results highlighted that perceived stress has a negative relationship with social support (r = -.409, p < .001), while PTSD has a marginal negative association with social support (r = -.168, p = .069). Perceived stress showed a positive association with PTSD (r = .475, p < .001) but a negative association with meaning in life (r = -.355, p < .001). Social support also positively affects meaning in life (r = .248, p < .001).

These results are a confirmation of previous research findings. For instance, Regehr& LeBlanc (2017)reported that stress and trauma are highly related. Similarly, in accordance with the psychiatric co-morbidities of PTSD and stress, the two stress measurements, PTSD and perceived stress, were expected to be positively associated, and the results confirmed this. Similarly, social support, widely considered a stress buffer, was negatively associated with stress measures. Moreover, meaning in life was negatively associated with perceived stress. Similar patterns were also reported in previous research. For instance, Dunn and Brien (2009) reported a similar negative association of perceived stress (PSS) with both perceived social support (MSPSS, r = -.28, p< .01) and meaning in life (MLQ, r = -.33, p < .01). Additionally, the authors reported a positive relationship between meaning in life and social support (r = .33, p < .01).

Furthermore, other research findings have reported negative associations between PTSD and social support (Wang et al., 2018; Dar et al., 2018; Mann et al., 2010). Although at the trend level, this was confirmed in the current study. The current finding of a positive association between PTSD and perceived stress confirms the results of a recent study by Zhang et al. (2021) in which a strong positive association was found between perceived stress and PTSD symptoms (r = .645, p < .001).

Similar to social support, meaning in life generally tends to be negatively associated with stress measures. For instance, Blackburn and Owens (2015) reported that the presence of meaning in life is a protective factor and is negatively correlated with PTSD (r = -.477, p < .005). Although in the current study, meaning in life was not significantly associated with PTSD, it was negatively associated with the other stress measure, perceived stress (r = -.355, p < .001). This result confirms Blackburn and Owens' assertions that the presence of meaning in life is a stress buffer.

Current results also indicated that women who experience either sexual or physical violence show significantly higher levels of PTSD than women who did not experience violence (t(116) = 2.84, p = .005 and t(116) = 2.37, p = .019, respectively). In addition, the World Health Organization(2020b)statistics showed that more than one-third of all women had been subjected to sexual harassment; and one in every five people has been the victim of a successful or attempted rape. This result of a significantly higher report of PTSD among women who experienced sexual violence confirms the findings by Cardoso et al. (2020). They reported that sexual violence and intimate partner violence were associated with an increased risk rate of PTSD. Moreover, it has been reported that tonic immobility (temporary motor inhibition during extreme fear) during the sexual assault was associated with increased PTSD symptoms (Möller et al.,2017). Similarly, several studies indicated that physical abuse and sexual abuse lead to an increased risk of PTSD, especially for the trauma that occurred during childhood (Hetzel, &McCanne, 2005; Sanchez et al., 2017; Adams et al., 2018). Thus, through aggregating the current study findings and previous research findings, it can be concluded that sexual and physical assault tends to increase exposure to PTSD symptoms among women survivors.

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Social support, which serves as a buffer for stress and negatively correlates with stress measures, showed a significant variation across participants who are single, married, divorced, or widowed $(F(3,114) = 6.36, p < .001)$. Married participants reported significantly higher social support than separated $(p < .001)$. This tends to confirm the assertion that married couples enjoy higher levels of social support. Furthermore, this result confirms previous reports that entering into a romantic relationship increases an individual's social network, lowering rates of mental illness among married than among single individuals (Adamczyk, &Segrin, 2015; Shapiro & Keyes, 2008). Therefore, it is possible to suggest that marriage positively contributes to increasing a sense of social support and improving mental health.

Meaning in life, the presence of meaning in life, and the search for meaning were also found to vary across different age groups $(F (3,114) = 3.71, p = .014)$. The age classification followed Arnett&Mitra's (2020) classification. Notably, according to participants in the emerging adulthood group (18–24) reported a greater sense of meaning in life $(M = 56.1, SD = 9.53, p = .014)$ than participants in late adulthood (60 and above; $M = 39.7, SD = 12.7, p = .059$). The exploratory analysis also confirmed that age and meaning in life showed a negative relation, with meaning in life reducing with age $(rpb(116) = -.295, p = .001)$. This result tends to contradict previous research reports, which suggested a J-shaped non-linear relationship (Krause &Rainville, 2020). However, in the current finding, as the study participants were found in traumatic situations, feelings of despair, a common phenomenon in old age, could explain the negative association between age and meaning in life.

The finding from the current study revealed that social support and perceived health status were predictors of PTSD and perceived stress. Linear regression analysis revealed that social support predicts PTSD (b = -.146, p < .05), while perceived health status marginally predicts PTSD (b = -2.79, p = .086). Exploratory analysis showed that PTSD showed negative associations with perceived health status (rpb = -.202, p = .028) and a marginal negative association with social support (r = -.168, p = .069). This marginal negative association was consistent with group comparisons in which participants with lower perceived social support reported significantly higher PTSD (t(80) = 2.08, p = .040). This result confirmed previous research reports that PTSD symptoms were moderated by the level of social support (Southwick et al., 2005; Nichter et al., 2019). Finally, groups of participants who reported very bad perceived general health status were more pronounced PTSD symptoms than those who reported very good health (t(16) = 3.02, p = .008). Based on these results, it is concluded that the extent of social support and perceived health status tends to have potency in predicting PTSD symptoms.

Results of the linear regression also indicated that perceived social support (b = -.158, p < .05) and perceived general health status (b = -1.4, p < .05) are significant predictors of perceived stress. Exploratory analysis showed that perceived stress and perceived health status negatively correlated (rpb = -.249, p = .007). This confirms previous research in which perceived stress was negatively associated with perceived health (Teh et al., 2015; Schönfeld et al., 2016). Additionally to the negative association between perceived stress and social support (r = -.409, p < .001), group comparisons revealed that participants with low social support reported significantly higher perceived stress than those with high social support (t(80) = 4.8, p < .001). In general, these findings tend to indicate that general health status and social support are both associated with perceived stress and may be used to predict stress outcomes.

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In conclusion, the current study aimed to investigate if PTSD symptoms, perceived stress, social support, and a sense of meaning in life are interrelated. Perceived stress and PTSD symptoms were found to be associated positively. PTSD and perceived stress both showed a negative association with social support. Moreover, meaning in life showed a positive association with social support and a negative association with perceived stress. Furthermore, participants with the experience of sexual or physical violence show significantly higher levels of PTSD symptoms. Finally, social support and perceived health status are significant predictors of PTSD symptoms and stress.

In this research, a strict translation and back-translation procedure was followed, including cultural validation, which made it possible for the participants to comprehend questionnaire items easily. On the other hand, there were several limitations associated with this study. First, the investigation was cross-sectional; thus, the results were only correlational, and causal relations were not tested. Moreover, the participants in this sample are only representatives of some economically deprived women in the selected sub-city of Addis Ababa, Ethiopia. Nevertheless, the current study produced context-specific evidence in relation to PTSD, stress, social support, and meaning in life among economically deprived women in Addis Ababa. In addition, the results from the current study would contribute to the initiation of further studies on trauma in Ethiopia, as there is currently no sufficient research in the area currently.

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