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# Depression and Coping Mechanism among Migrant Returnees from Middle East Countries in Amhara Region, Ethiopia

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## Abstract

**Objective:** The purpose of this study was to assess risk factors and measure prevalence of depression disorder and coping mechanisms of migrant returnees from Middle East countries in Amhara Region, Ethiopia.

**Methods:** Mixed method explanatory research design was employed on 376 randomly selected migrant returnees in six nominated towns of the region. Beck Depression Inventory (BDI-II), Abusive Behavioral Checklist (ABC) and Coping Strategy Indicator (CSI) were employed for assessment. Focus Group Discussion (FGD) and interview were also utilized. Descriptive statistics, independent t-test, dependent t-test and ANOVA were utilized to analyze the collected data.

**Result:** The general life time prevalence of depression disorder was 34.8%. Specifically, headache, stomachache and irritability were most frequently reported core symptoms of depression by most of returnees, but suicidal thoughts, pessimism, and sadness occur as well. Likewise, imprisonment, ill health condition without access to medical care, serious physical injury from combat situation, witness of beatings to head or body, witness of torture, forced for separation from family members, isolation from others, for lack of shelter, lack of food or water, for evacuation under dangerous conditions, witness of rape or sexual abuse and physical abuse like beating to the body were highly reported traumatic experience by domestic migrant returnees respectively. In this study, the independent t-test result shows that there was statistically significant mean difference in sex ( $t(374)=-4.075$ ,  $p<0.05$ ), employment status ( $t(374)=2.178$ ,  $p<0.05$ ) and legal status of migrant returnees ( $t(374)=-9.058$ ,  $p<0.05$ ) in experiencing depression disorder. Besides, ANOVA result revealed that age ( $F(3,372)=19.003$ ,  $p<0.05$ ), educational status ( $F(2,372)=6.939$ ,  $p<0.05$ ), average monthly income of the returnees in Middle East countries ( $F(2,373)=44.072$ ,

$p<0.05$ ), types of abuse that returnees' face ( $F(3,372)=2.996$ ,  $p<0.05$ ) had statistically significant effect on depression disorder of migrant returnees. Finally, problem solving, seeking social support and avoidance coping mechanisms were utilized by returnees in their due order.

**Conclusion:** The life time prevalence of depression disorder was very high. Therefore, mental health service providers shall consider in diagnosing and treating depression disorder among migrant returnees.

**Keywords:** Depression; Coping mechanism; Migrant returnees

## Introduction

Migration is a process of moving across international borders and/or within a state. It is a movement, encompassing any kind of movement of people, whatever its length, composition and causes [1]. In addition, a migrant returnee is an individual who had left his/her place of origin regardless of any reason, but who has returned to his/her place of origin [2].

The migration process involves separation from country of origin, family members, and familiar customs; exposure to a new physical environment; and navigation of unfamiliar cultural contexts. Stresses involved in the immigration experience can cause or exacerbate mental health difficulties, including anxiety, depression, posttraumatic stress disorder (PTSD), substance abuse, suicidal ideation, and severe mental illness [3]. Likewise, the severing of these networks and the removal of interpersonal and socio-cultural supports that may follow migration can contribute to negative social and psychological health outcomes for individuals and groups [4]. Moreover, the transition may be followed by unforeseen negative consequences and may require exceptional social adjustments [5]. Although the process of migration-adaptation is a challenging experience, it can also mean hope for a better future for many individuals.

In the past ten years, Middle East countries become common destinations for Ethiopian migrants in search of a better future [6-8]. The exact number of Ethiopian migrants to the Middle East is unknown as two-thirds of them migrate through undocumented means [9,10]. The Ethiopian Ministry of Labor and Social Affairs (MOLSA), for example, reported that as recently as 2012, 80,000 Ethiopian women have legally migrated to the Middle East while in the same period, 60-70% Ethiopians migrated through irregular routes. Close to 120,000 Ethiopians migrate every year [11]. This estimate surged to 600,000 in 2012/13 [12].

The trend expanded especially with the change of Ethiopia government in 1991. On this issue, De Regt [13] argues that Ethiopians migrating to the Middle East before the early 1990's were small in number. With the overthrow of the communist regime in 1991, the right to free movement was provided for all Ethiopians. Since then there has been a massive influx of both women and men to the Gulf region to take up menial occupations. Women constitute a higher proportion of the labor migrants than men because there is more demand for domestic workers.

Domestic workers are mainly employed to carry out activities including cleaning, child minding, servicing, gardening or care-taking of elderly people in all sectors of private households. In addition to being employed in such challenging activities, women domestic workers in the Middle East also experienced overwork, denial of food and salary, lack of medication, imprisonment, sexual attacks, and emotional and physical abuse [14-17].

Many literatures including Meskerem [17], Gebeyehu [18], Esubalew [19], IOM [20] and ILO [21] clearly demonstrated that trafficked victims faced exploitative and coercion conditions at work places in destination countries including long working hours, restricted movement through confiscation of passports, isolation and inability to change employers. Victims have been subjected to different forms of abuse such as physical, sexual, verbal and emotional in the hands of traffickers and employers. These abusive behavior together with the absence of medical care, result in untreated physical injuries, mental health problems, unwanted pregnancies and even death. In the most extreme instances, the victims become slaves, pure and simple, losing all control over their lives and becoming objects to be bought and sold on the prostitution market [22]. In line with this, from 1999-2005 the Quarantine Office of the Addis Ababa International Airport reported 129 female bodies returned from Jeddah, Dubai, and Beirut. In all cases the cause of death was determined to be suicide [20]. Anbesse et al. [23] study on returnees from the Middle East to Ethiopia arose due to the observations of the number of return migrants seeking professional psychiatric help. The authors suggest that this is just the tip of the iceberg of mental disorders experienced by female migrants, and it is an area of concern.

Previous research documented that multiple complications like physical, sexual and emotional abuse, salary denial, and violation of expectations each contribute to the decline in mental health of domestic work migrant returnees [24,25].

Like many domestic migrant workers in the Middle East, Ethiopian migrants experience diverse problems at the various stages of their migration; pre-departure, during route, in the destination, and even after return from the Gulf States [25-28]. Study results show that Ethiopian migrant returnees experienced recurring incidents of inhumane treatment, enforced cultural isolation, undermining of cultural identity, and unmet expectations during their stay as domestic worker migrants in the Middle Eastern countries [24]. As a result, many scholars reported that migrant domestic workers are vulnerable to migration-related stress and mental health problems [14,29,30]. Particularly, depression was highly reported [31]. Therefore, depression is characterized by the presence of symptoms of depressed mood, markedly diminished interest and/or pleasure in almost all activities, significant weight loss or gain or increase or loss of appetite, physical agitation, fatigue and feelings of worthlessness or excessive guilt [32].

Various researches have been conducted on the prevalence of depression among migrants. For instance, the prevalence of depression disorder was 20% among labor migrants [33], 14% among Haitian immigrant students [34], 16.7% of trafficked women [35], 55% of trafficked and sexually exploited females [36] and 20% of migrants in Sweden [37]. Also, Haile et al. research results suggested that a lifetime prevalence of depression disorder among Ethiopian immigrants in Toronto was 9.8%, which was slightly higher than the lifetime prevalence in the Ontario population (7.3%).

In many empirical studies, the effects of socio-demographic variables on depression disorder among migrant returnees have been studied in developed and developing country intensively. These studies found that sex [9,24,38-41], current employment status [42,43], legality status [44], age [45], educational status [46], types of abuse returnees' face [47-51] had statistically significant effect on depression disorder among migrant returnees.

Coping skills were also in evidence, however, including spiritual sources of coping, maintenance of friendships with other Ethiopian women, and reassertion of one's cultural identity. Spiritual sources of coping were found to be an important coping mechanism among East African migrants in Australia [52].

Ethiopian migrants were detained and repatriated by Middle East countries because numerous restrictions have been imposed in their legislation of new labor law to maintain the highly privilege position of their nation. Though it is so difficult to determine the reliable data about the static number of migrant returnees, 181,218 migrant returnees from Middle East countries were deported through Bole International Airport as of January 18/2014 among whom 49,418 migrant returnees were from Amhara region [53]. And it was believed that majority were likely trafficking victims. Many deportees reported that they returned empty handed and not having repaid debts to those who smuggled them, many, particularly female trafficking victims, were referred to care and rehabilitation centers due to severe traumatization and physical abuses [53]. In spite of the difficulties that domestic

workers face and the consequences of these challenges, the number of migrants is increasing rapidly in the world.

In general, despite those recent attempts to describe migrant returnees' issue, research on migrants' vulnerability, hardships and adjustment difficulties, mental health problems and the resistance resources in the adaptation process is not well researched in Amhara region. This study, therefore, was undertaken to address this significant gap in research. This study was intended to address the following basic research questions:

- What is the prevalence of depression among migrant returnees from Middle East countries in Amhara region?
- What types of traumatic events contribute to experience depression disorder among migrant returnees in the process of migration?
- Is there a statistically significant difference in experiencing depression across sex, age, marital status, educational status, income and types of abuse returnees' face?
- What kinds of coping mechanism are most commonly used by migrant returnees?

## Materials and Methods

### Study design

The purpose of the present study was to assess the determinant factors and prevalence of depression and Coping Mechanisms among migrant returnees in Amhara region. To achieve this purpose, mixed method explanatory research design was employed.

### Study area

Amhara region is one of the nine ethnic divisions (regions) of Ethiopia. The Amhara region is bordered by the nation of Sudan to the west and the Ethiopian regions of Tigray to the north, Afar to the east, Benishangul-Gumuz to the west and southwest, and Oromia to the south. Based on the 2007 Census of the Central Statistical Agency of Ethiopia (CSA), the Amhara Region has a population of 17,221,976 among whom 8,641,580 were men. For the entire Region 3, 983,768 households were counted. With regarding to religion, 82.5% Christian (orthodox), 17.2% Muslim, 0.2% protestant and 0.1% were other faiths. Additionally, 28% of the total population had access to safe drinking water, of which 19.89% were rural inhabitants. Values for other reported common indicators of the standard of living for Amhara region include the following: 17.5% of the inhabitants fall into the lowest wealth quintile; adult literacy for men is 54% and for women 25.1%; and there is only one residential facility in the country for chronically mentally ill and several other residential facilities, which have served mentally ill clients along with their beneficiaries. Having this, this study was conducted in six study sites of the region that were already identified as hotspot areas for migration from Ethiopia to the Middle East. These study sites identified as hotspots for migration based on Disaster Prevention and Food Security of Amhara Regional Administrative Office (DPFS)

and Labor and Social Affairs of Amhara Regional Administrative Office. The study sites included Debire Tabor, BahirDar, Habiru, Dessie, Kemisie, and Ataye towns. In these study sites, migrant returnees have potentially situated in these area. In addition, human trafficking is highly prevalent in these study sites.

### Sampling and sample size determination

The target population of this study was migrant returnees who migrate for the purpose of better quality of life but deported forcefully by Middle East countries. According to the Disaster Prevention and Food Security of Amhara Regional Administrative Office (DPFS), 49,418 migrant returnees were registered for social and economic reintegration until January 30/2014. Proportionate stratified sampling was employed to determine the number of participants across study sites, gender and age. Participants were 423 randomly selected returnees from 6 towns in Amhara region, Ethiopia. However, among the 423 distributed questionnaires, data collectors could collect 376 properly filled questionnaires. The rest 47 questionnaires were discarded for incompleteness. Due to this, the study analysis was done based on the response of 376 study participants. Simple random sampling technique was used to recruit returnees from each study sites. Besides, 18 core government stakeholders in different level, 25 migrant returnees, 15 parents of migrant returnees and 4 brokers in the prison were also selected by using available sampling technique.

### Variables

The dependent variables of this study were migrant returnees' depression disorder and coping mechanisms. The primary independent variables were returnees' demographic characteristics including their sex, age, current employment status, migration status, educational status, average monthly income, and types of abuse migrant returnees' face.

### Data collection instruments

Full scale pre-established questionnaires, focus group discussion (FGD) and interview were used to gather the required data from samples. Ultimately, the questionnaire has five sections where the first section collects data on respondents' demographic characteristics. The second part of the questionnaire was Beck Depression Inventory (BDI-II) to measure the prevalence of depression disorder. The third part of the questionnaire was Coping Strategy Indicator (CSI-33) to identify which coping mechanisms were commonly used by migrant returnees. The fourth section of the questionnaire was Abusive Behavioral Checklist (ABC) to identify the contributing factors for depression among migrant returnees. Finally, self-developed interview and FGD were employed to support the quantitative data.

### Beck depression inventory (BDI-II)

Beck Depression Inventory (BDI-II) is a 21-item scale that was developed by Beck [54]. It was designed to assess DSM-IV

defined symptoms of depression such as sadness, guilt, loss of interest, social withdrawal and suicidal ideation. This scale was designed to measure the severity of depressive symptoms that the test taker is experiencing "at that moment". Nineteen of the items are assessed on a 4-point scale according to increasing severity, with a further 2 items allowing the respondent to indicate an increase or decrease in sleep or appetite (distinguishing it from the Beck Depression Inventory-IA, which does not assess atypical depressive symptoms). Items are scored on a 0–3 scale, yielding a score range of 0–63 where higher scores indicate greater depression severity. According to Beck et al. [53] scores in the range of 0–13 indicate minimal depression, 14–19 mild depression, 20–28 moderate depression, and 29–63 severe depression. The internal consistency found coefficient alphas for the BDI-II and the BDI-IA of 0.91 and 0.89, respectively. The convergent validity with the BDI has been reported to be extremely variable, ranging between 0.27 and 0.89 [54].

### Coping strategy indicator (CSI)

The Coping Strategy Indicator (CSI), developed by Amirkhan [55], is intended as a widely applicable self-report measure of situational coping encompassing the strategies of avoidance, problem solving and seeking social support. The Coping Strategy Indicator (CSI) is a 33-item, 3-point self-report rating scale designed to assess 3 basic modes of coping. Responses on each of the CSI's 33-items are indicated by means of a three point scale: a lot (3), a little (2), or not at all (1). The three subscales each contain 11 items and subscale scores are calculated by summing responses to appropriate items (range 0–33), higher scores indicate greater use of the strategy. Subjects select a stressful event from their lives and briefly describe it. The event must have occurred within the past six months and must be considered important [56]. Then subjects, keeping that event in mind, respond to 33 questions. On top of that, Cronbach's alpha coefficients indicate adequate internal consistency for each of the subscales ranging from 0.86 to 0.98 for Problem Solving, 0.89 to 0.98 for Seeking Social Support and from 0.77 to 0.96 for avoidance. Regarding to the internal reliabilities for the CIS, another study conducted by Desmond et al. [57] in a sample of 618 British individuals with a chronic health challenge, namely amputation of a limb show that Cronbach's alpha coefficients of 0.9220 and 0.8687 were obtained for the Problem Solving and Support Seeking scales, respectively. The Cronbach's alpha coefficient calculated for the full CSI Avoidance scale was 0.79.

### Pilot test

The pilot study was conducted in Gondar town, North Gondar zone, North West Ethiopia, on 80 migrant returnees from Middle East countries. Before collecting the final data, the tools were translated in to Amharic language. Content validity of the English and Amharic version was assessed by two clinical psychologists from University of Gondar. The translation consistency of the instrument was also examined by three language experts from University of Gondar. Based on the comments and suggestions of the experts, changes were

made in wording of three depression items on Amharic version of the tool. In the pilot study, the reliabilities of the tools were found to be 0.891 and 0.87 for Beck Depression Inventory and Coping Strategy Indicator respectively for full scale.

## Data Collection Procedures

To collect data for the study, six supervisors were dispatched in which one supervisor for each study site were assigned. The role of supervisors was to train data collectors, oversee participant recruitment and data collection and checking and controlling data quality. A total of 24 data collectors (four for each site) with at least a diploma level training mainly in the social sciences were recruited. Half-day training was provided for the data collectors on the purpose of the study, the contents of the data collection instruments, ethical matters, and on how to recruit and approach participants. Data collectors went door to door in areas where migrant returnees were available via the guidance of key informants in each locality. The data-collection process was closely followed-up by the supervisors.

### Data analysis

Descriptive statistics (percentages, number of cases, cross-tabulations, mean and standard deviation) and inferential statistics (ANOVA and independent sample t-test and one sample t-test) were used to describe migrant returnees' depression and coping mechanism. Correspondingly, the qualitative data were analyzed through narration. All data were analyzed using Statistical Package for Social Science (SPSS) for window version 20.

### Ethical considerations

Oral as well as written informed consent was secured from the respondents. In addition, written permission was obtained from the respective officials of the institutions and organizations where the respondents were recruited based on an official request letter issued by University of Gondar.

## Results

As can be seen from **Table 1**, out of 376 migrant returnees, most 207 (55.1%) were males and 169 (44.9%) were females. The mean age of the respondents was 25.87 (SD=5.876) where the minimum and maximum ages were 16 and 52 respectively. With respect to marital status, 227 (60.4%), 112 (29.8%) and 37 (9.8%) respondents were single, married and divorced respectively. Regarding to educational status, out of all respondents, 109 (29%) had found to be grade 9 and above, followed by 98 (26.1%) 5 up to 8 graders. 89 (23.7%) migrant returnees were illiterates and 80 (21.3%) were from grade 1 up to 4. Of all the respondents, 230 (61.2%) were currently unemployed while 146 (38.8%) were employed. Furthermore, with regard to the average monthly income when they were in Middle East countries, out of all respondents, most 153 (40.7%) had found to be categorized as middle income, followed by lower income 142 (37.8%) and upper income 81

(21.5%). Finally, out of the total respondents, most of 173 (46%) were victim of multiple abuses, followed by 80 (21.3%) financially abused respondents. while 66 (17.6%) and 57 (15.2%) were physically and sexually abused respondents respectively.

**Table 1** Demographic characteristics of the respondents.

Demographic Variable	Categories	Frequency	Percentage
Sex	Male	207	55.1
	Female	169	44.9
Age	Mean SD	Minimum	Maximum
	25.87 5.876	16	52
Marital Status	Married	112	29.8
	Single	227	60.4
	Divorced	37	9.8
Educational Status	Illiterate	89	23.7
	Grade 1-4	80	21.3
	Grade 5-8	98	26.1
	Grade 9& above	109	29
Current Employment Status	Unemployed	230	61.2
	Employed	146	38.8
Monthly Income in Middle East	Lower Income ( $\leq$ 1200 Riyal)	142	37.8
	Middle Income (1201-2500 Riyal)	153	40.7
	Upper Income ( $>$ 2501 Riyal)	81	21.5

## General prevalence of depression disorder among migrant returnees

In order to assess the prevalence of depression, Beck Depression Inventory (BDI-II) scale was employed and presented as follows (**Table 2**).

**Table 2** Prevalence of depression among migrant returnees.

Variable	Category	Frequency	Percent
Depression Score	Minimal Depression (0-13 score)	53	14
	Mild Depression (14-19 score)	90	24.1
	Moderate Depression (20-28 score)	102	27.1
	Severe Depression (29-63 score)	131	34.8

As can be shown from **Table 2**, out of 376 participants, 53 (14%), 90 (24.1%), 102 (27.1%), and 131 (34.8%) of migrant returnees had found to be minimal, mild, moderate and severe level of depression disorder respectively. For this reason, the

general lifetime prevalence of depression disorder was 34.8%. More specifically, headache, stomachache and irritability were most frequently reported core symptoms of depression by most of returnees, but suicidal thoughts, pessimism, and sadness occur as well. According to the crosstab result, even higher prevalence of depression disorder was found among single, illiterates, returnees with lower monthly income, currently unemployed and victim of multiple abuse female migrant returnees.

## Contributing factors for depression among migrant returnees

As shown in **Table 3**, out of the total 376 respondents, the highest problem 304 (80.8%) were imprisonment; 241 (64%) of returnees faced ill health condition without access to medical care and 211 (56.1%) of returnees were exposed for serious physical injury from combat situation. Similarly, 174 (46.2%) of respondents complained for witness of beatings to head or body; 171 (45.4%) of returnees were exposed for any witness of torture; 168 (44.6%) of returnees were forced for separation from family members; 163 (43.3%), 158 (42%), 142 (37.7%), 150 (39.9%), 148 (39.3%) and 131 (34.8%) of returnees were enforced for isolation from others, for lack of shelter, lack of food or water, for evacuation under dangerous conditions, witness of rape or sexual abuse and physical abuse like beating to the body were highly reported traumatic experience by domestic migrant returnees respectively. Correspondingly, 128 (34%), 112 (29.7%), 102 (27.1%), 98 (26%) and 91 (24.2%) of migrant returnees were exposed for brainwashing, disappearance or kidnapping of other family member, destroy someone else's property or possessions, forced to hide and labor abuse respectively. Hence, 85 (22.6%) extortion or robbery, 81 (21.5%) confiscation or destruction of personal property robbery, 73 (19.4%) witness of killing/murder, 71 (1.8%) kidnapped, 62 (16.4%) betray you and place you at risk of death or injury and 51 (13.5%) betray family member, or friend placing them at risk of death or injury and 12 (3.1%) destroy the body's graves of deceased persons were reported by some.

**Table 3** Contributing factors for depression at destination countries.

No	Contributing factors for depression disorder	Yes N (%)
1	Have you been in imprisoning?	304 (80.8)
2	Have you experienced any ill health condition without access to medical care?	241 (64)
3	Have you been in serious physical injury from combat situation?	211 (56.1)
4	Have you exposed for any witness of beatings to head or body?	174 (46.2)
5	Have you experienced any torture or exposed for any witness of torture?	171 (45.4)
6	Have you experienced any other forced separation from family members?	168 (44.6)

7	Have you enforced for any isolation from others?	163 (43.3)
8	Have you exposed for lack of shelter?	158 (42)
9	Have you suffered through lack of food or water?	142 (37.7)
10	Have you being forced for evacuation under dangerous conditions?	150 (39.9)
11	Have you been witness of rape or sexual abuse?	148 (39.3 )
12	Have you experienced any physical abuse like beating to the body?	131 (34.8)
13	Have you exposed for Brainwashing?	128 (34)
14	Have you exposed for disappearance or kidnapping of other family member or friend?	112 (29.7)
15	Have you forced to destroy someone else's property or possessions?	102 (27.1)
16	Have you been forced to hide?	98 (26 )
17	Have you been forced for labor (like animal or slave)?	91 (24.2)
18	Have you uncovered for extortion or robbery?	85 (22.6)
19	Have you experienced for confiscation or destruction of personal property?	81 (21.5)
20	Have you experienced any witness of killing/ murder?	73 (19.4)
21	Have you been kidnapped?	71 (18.8)
22	Was someone forced to betray you and place you at risk of death or injury?	62 (16.4)
23	Have you been forced to betray family member, or friend placing them at risk of death or injury?	51 (13.5)
24	Have you being raped?	37 (9.8)
25	Have you been forced to desecrate or destroy the body's graves of deceased persons?	12 (3.1)

### Differences in experiencing depression across returnees' demographic variables

Independent sample t-tests were used to look in to the mean difference on returnees' depression disorder based on sex, employment status and migration status and results of the analysis were summarized in **Table 4**.

As can be revealed in **Table 4**, the independent sample t-test result shows that there was a statistically significant mean difference in experiencing depression disorder between male and female returnees ( $t(374)=-4.075, p<0.05$ ). Here, the mean score of depression disorder for female returnees ( $M=32.16, SD=13.21$ ) was higher than male migrant returnees ( $M=26.91, SD=11.75$ ). This implies that female respondents were more victim of depression disorder than their male counter parts. Along with this, there was a statistically significant mean difference between currently unemployed and currently employed respondents in experiencing depression disorder ( $t(374)=2.178, p<0.05$ ). Moreover, the mean score of depression disorder for currently unemployed returnees ( $M=30.40, SD=12.65$ ) was higher than mean score of depression disorder for currently employed returnees ( $M=27.49, SD=12.54$ ). Finally, **Table 3** also shows us that the

mean score of depression disorder for illegal migrant returnees ( $M=34.17, SD=10.59$ ) were higher than legally documented migrants ( $M=23.39, SD=12.48$ ) and the difference was a statistically significant ( $t(374)=-9.058, p<0.05$ ).

**Table 4** Mean difference between returnees' demographic variables on depression.

Variable	Category	N	M	SD	t-value	p-value
Sex	Male	207	26.91	11.75	-4.075	0.00
	Female	169	32.16	13.21		
Employment Status	Currently Unemployed	230	30.4	12.65	2.178	0.03
	Currently Employed	146	27.49	12.54		
Migration Status	Legal Migrants	171	23.39	12.48	-9.058	0.00
	Illegal Migrants	205	34.17	10.59		

### Comparison of depression disorder among migrant returnees' demographic variable

One way ANOVA was employed to look-in to the mean difference in returnees' depression disorder based on age, educational status, average monthly income and types of abuse migrant returnees' face. The summaries of the findings were presented in **Table 4**.

As can be seen from **Table 5**, the age of migrant returnees had a statistically significant effect ( $F(3,372)=19.003, p<0.05$ ) on depression disorder. In the same fashion, the Bonferroni post hoc result demonstrated that highly significant depression score mean differences were reported among adolescents (13-20 years) ( $p<0.05$ ) than early adulthood (21-29 years) ( $p<0.05$ ) and middle adulthood (30 years and above) ( $p<0.05$ ). The mean depression score of adolescents ( $M=34.17, SD=11.95$ ) was higher than early adulthood ( $M=27.58, SD=12.39$ ) and middle adulthood and above ( $M=25.02, SD=11.92$ ). However, insignificant depression differences were obtained between early adulthood and middle adulthood and above returnees ( $p>0.05$ ).

Furthermore, migrant returnees' educational status ( $F(2,372)=6.939, p<0.05$ ) had a statistically significant effect on their depression disorder. The Bonferroni post hoc multiple comparisons result displayed that illiterate returnees demonstrated highly significant mean difference on depression symptom as compared to 1-4 graders ( $p<0.05$ ), 5-8 graders ( $p<0.05$ ) and 9 and above graders ( $p<0.05$ ). The mean depression score of illiterate returnees ( $M=33.82, SD=10.19$ ) was higher than 1-4 graders ( $M=28.31, SD=12.70$ ), 5-8 graders ( $M=29.70, SD=13.20$ ) and 9 and above grader ( $M=25.87, SD=13.00$ ).

Moreover, **Table 5** shows us that average monthly income of the returnees in Middle East countries had significant effect on depression symptoms ( $F(2,373)=44.072, p<0.05$ ). Consistently, the Bonferroni post hoc multiple comparisons revealed that the depression disorder of returnees with lower income had a statistically significant difference as compared to returnees with middle income ( $p<0.05$ ) and upper income ( $p<0.05$ ). The mean depression disorder score of returnees with lower income ( $M=36.31, SD=10.62$ ) was higher than returnees with middle income ( $M=25.65, SD=12.10$ ) and upper income ( $M=23.75, SD=11.47$ ).

**Table 5** also inform us that types of abuse that returnees' face in Middle East countries had a significant effect on depression disorder ( $F(3,372)=2.996, p<0.05$ ). The Bonferroni post hoc multiple comparisons result demonstrated that

significant mean difference on depression score were observed on multiple abused victims ( $p<0.05$ ) as compared to physically abused ( $p<0.05$ ) and financially abused returnees ( $p<0.05$ ). The mean depression disorder score of returnees with multiple abuse ( $M=31.17, SD=12.24$ ) were higher than sexually abused returnees ( $M=29.43, SD=13.73$ ), physically abused returnees ( $M=27.00, SD=11.94$ ) and victim of financially abused returnees ( $M=26.90, SD=12.92$ ). Conversely, The post hoc multiple comparisons result confirmed that insignificant mean difference on depressive symptoms were found on physically abused victims as compared to sexually abused victims ( $p>0.05$ ) and financially abused victims ( $p>0.05$ ). Likewise, insignificant mean differences on depressive symptom were found on sexually abused victims as compared to multiple abused victims ( $p>0.05$ ).

**Table 5** ANOVA result of the effect of returnees' age, educational status, average monthly income and types of abuse migrant returnees' face on depression.

Variable	Category	N	M	SD	t-value	p-value
Age	Adolescences (13-20 years)	137	34.17	11.95	19.003	0.00
	Early adulthood (21-29 years)	134	27.58	12.39		
	Adulthood & above( $\geq 30$ years)	105	25.02	11.92		
Educational Status	Illiterate	89	33.82	10.19	6.939	0.00
	Grade 1-4	80	28.31	12.7		
	Grade 5-8	98	29.7	13.2		
	Grade 9 and above	109	25.87	13		
Average Monthly Income	Lower Income Group	142	36.31	10.62	44.072	0.00
	Middle Income Group	153	25.65	12.1		
	Higher Income Group	81	23.75	11.47		
Types of Abuse Returnees' Face	Physical Abuse	66	27	11.94	2.996	0.031
	Sexual Abuse	57	29.43	13.73		
	Financial Abuse	80	26.9	12.92		
	Multiple Abuse	173	31.17	12.24		

## Coping mechanisms of migrant returnees

In order to measure migrant returnees' coping mechanism, Coping Strategies Indicator tool was used. The mean score and one sample dependent t-test result were computed to identify

the most frequently used coping mechanisms and the general nature of problem solving, seeking social support and avoidance coping mechanisms used by participants were examined (**Table 6**).

**Table 6** Dependent t-test result for coping mechanisms used by migrant returnees.

Variables	N	Max	Min	Mean	SD	Df	t- test Value	T	Sig
Problem Solving	376	33	14	25.57	3.611	375	23.5	13.824	0.000
Seeking Social Support	376	33	15	23.44	3.088	375	24	2.789	0.006
Avoidance	376	29	12	20.21	3.379	375	20.5	-15.996	0.000

As can be seen in **Table 6**, the most frequently used coping mechanism by migrant returnees were problem-solving

( $M=25.57, SD=3.61$ ), followed by seeking social support ( $M=23.44, SD=3.08$ ). But avoidance ( $M=20.21, SD=3.37$ ) was

least used coping mechanism. In addition, the result designates that the average values of problem solving ( $t(376)=13.824$ ,  $p<0.05$ ), seeking social support ( $t(376)=2.789$ ,  $p<0.05$ ) and avoidance  $t(376)=-15.996$ ,  $p<0.05$ ) were found to be a statistically significant.

## Discussion

The purpose of this study was to assess the determinant factors and prevalence of depression and coping mechanisms among migrant returnees in Amhara region. Although psychological distress has been observed to be higher among migrants to the Middle East who migrated as domestic workers [24,58] little is known about the prevalence and severity of mental health distress and somatic symptoms associated with psychological distress, particularly among migrant returnees population.

In the present study, the general lifetime prevalence of depression disorder was 34.8%. More specifically, headache, stomachache and irritability were more frequently reported core symptoms of depression by most of returnees, but suicidal thoughts, pessimism, and sadness occur as well. This result was supported with that of Lindert et al. [32] who found that the prevalence for depression were 20% among labor migrants. Along with this, the present finding was in accordance with Fawzi et al. [33] who found that the prevalence of depression was 14.0% among Haitian immigrant students. In addition, Ostrovski et al. [34] indicated that the prevalence of depression was diagnosed among 16.7% of trafficked women in Moldova, Eastern Europe who had returned to their country of origin. Hence, Haile et al. study result suggested that a lifetime prevalence of depression disorder among Ethiopian immigrants in Toronto was 9.8%, which was slightly higher than the lifetime prevalence in the Ontario population (7.3%). Moreover, Hossain et al. [35] study finding shows that 55% of trafficked and sexually exploited girls met the criteria for high levels of depression symptoms [59]. Besides, Ali [60] study designated that the lifetime prevalence of depression was 10.8%. Also, 20% of migrants in Sweden met symptom of depression [36]. Additionally, these findings were also consistent with previous qualitative studies conducted in Ethiopia among returnees from the different Middle East countries who migrated for domestic work [24,58,59]. The rate of suicide in the Ethiopian immigrant community is exceptionally high [60,61].

The present study found that the overall context of poverty was the most important reason for migration. To improve personal and family life situation/living standard, search for better life and better paying job, failure to succeed in educational endeavors, poverty of family and poor life situation, unemployment, failure to succeed in educational endeavors were additional factors. The present study finding was consistently pertinent with many previous research findings in Ethiopia such as Emebet [6], Asefach [14], Agrinet [41], ILO [21], IOM [22] and Bezabih [62]. Our finding is also consistent with a number of previous studies conducted in North America [63-66], Europe [67-72] and the Middle East [73,74] among migrants and refugees from different countries

who found that migration related stressors (such as being unable to get salary on time and salary denial) and preparation of the migrant beforehand (e.g. awareness about the culture, the lifestyle, food and religion of the destination country) are important predictors of depression disorder symptoms. Along with this, Christine et al. [36] found that risk factors for depressive symptoms among migrants include stressful life events, lack of social support or isolation, physical health problems, inability to speak the language of the host country, the demands of multiple roles, and separation from children who remained in the country of origin.

In this study, the mean score of depression for female respondents were higher than male respondents. The difference was also statistically significant. This study result yields consistent with findings of Tsutsumi et al. [75] in Nepal reported a high prevalence of depression (81.8%) among female trafficked migrants for labor exploitation than males. The study also suggested significantly increased risk of depression among women who had been trafficked for sexual exploitation compared with women who had been trafficked for labor exploitation.

Our findings show high prevalence estimates of mental distress among women compared with men are consistent with most previous studies [9,23,38,39,76]. Researchers have shown that mental health problems particularly mental health distress and somatic complaints affect women to a greater extent than men across diverse societies and social contexts [40,77,78]. Pressures created by their multiple role and responsibilities, and associated factors such as gender based violence; contribute to women's poor mental health [10].

Moreover, the result of this study shows that the mean score of depression for currently unemployed returnees was higher than mean score of depression for currently employed returnees. The mean differences were statistically significant which supports findings from previous study [42,49,50].

Higher prevalence of depression disorder was found among illegal migrant returnees than legally documented migrants and the difference was statistically significant. The finding of this study were similar to those reported by Hiott et al. [43] in which mobile lifestyle, concerns about legal status, and lack of control over their situation were found to be factors for stress and depression.

In this study, age of the respondents had found significant effect on depression disorder. Veling et al. [44] indicated that lower age at the time of migration was associated with a higher incidence of psychological disorders among immigrants. People who migrated between the ages of 12 and 17 years had higher risk for psychological disorders compared with the risk among Dutch citizens. However, the present study finding was inconsistent with previous studies of Ostrovski et al. [34] and Rasmussen et al. [78].

In the present study, significant differences for educational status of the respondents on depression were found. This result yields consistent with previous research findings of Aragona et al. [28] who found that there were significant differences for any of the other education categories.

However, there was inconsistent with study finding of Rasmussen et al. [78].

In this study, income of migrant returnees in Middle East countries had significant effect on depression disorder. This result was consistent with the finding of Lindert et al. [32] who found that lower socioeconomic status of immigrants was associated with depression disorder. However, the present study result yields inconsistency with previous research findings of Massimiliano et al. [79] and Abas et al. [80].

In this study, types of abuse returnees' face had a significant main effect on depression disorder. This study yields pertinent findings with previous researches of Eisenman et al. [46]; Silove et al. [47] and Holman et al. [48]. This result was also supported by the findings from previous studies including Zimmerman et al. [49]; Farley et al. [50].

In present study, the most frequently used coping mechanism by respondents was problem-solving, seeking social support and avoidance coping mechanism respectively. This result was in line with Araya et al. [45] who found higher levels of endorsement of problem solving coping mechanisms to deal PTSD in migrants from culturally traditional countries. Congruently, Selvira [81] also found pertinent finding with the present study which demonstrated that social support as one of coping strategies most often used by Bosnian immigrants in Switzerland. Spiritual sources of coping were found to be an important coping mechanism among East African migrants in Australia [51].

## Conclusion

In this study, the general life time prevalence of depression disorder was 34.8%. Specifically, headache, stomachache and irritability were most frequently reported core symptoms of depression by most of returnees, but suicidal thoughts, pessimism, and sadness occur as well. Likewise, imprisonment, ill health condition without access to medical care, serious physical injury from combat situation, witness of beatings to head or body, witness of torture, forced for separation from family members, isolation from others, for lack of shelter, lack of food or water, for evacuation under dangerous conditions, witness of rape or sexual abuse and physical abuse like beating to the body were highly reported traumatic experience by domestic migrants returnees respectively. In this study, there was a statistically significant mean difference in experiencing depression disorder among sex, employment status and legal status of migrant returnees. Besides, the result of this study shows that age, educational status, average monthly income of the returnees in Middle East countries, types of abuse that returnees' face had a statistically significant effect on depression disorder of migrant returnees. Finally, problem solving, seeking social support and avoidance coping mechanisms were utilized by returnees in their due order.

## Recommendation

Based on the result of the study, the following recommendations shall be implemented by responsible

stakeholders of the region as well as the federal government of Ethiopia. Mental health service providers shall consider in diagnosing and treating depression disorder among migrant returnees. The psychosocial service shall be taken place in all Zones and Woredas in Amhara region. All concerned governmental, non-governmental and civil society stakeholders shall work hand in hand to improve the migrant returnees' mental health problem. Congruently, both governmental and non-governmental organizations (including migrant returnees) of Amhara region shall raise awareness among the potential victims on the possibilities to work in their own country and about all the range of dangers to the destination countries. Furthermore, using all available means and media outlets, the governmental and non-governmental organizations shall show the available domestic work opportunities and possibilities of changing one's own life in the country for the young generations. In this regard, the private and public press shall also work in partnership with the government in advertising the available and potential domestic job opportunities and encourage the young generation to improve their work habits and entrepreneurship skills. In line with this, governmental and nongovernmental organizations that are currently working on job-creation for migrant returnees within the country need to extend their vision to include returnees in their income generating projects. Lack of assistance turns yesterday's returnees into today's victims of trafficking. In addition, the regional government has to strengthen the existing piece of movement in all Zones and Woredas to reintegrate migrant returnees with the society. Additionally, regional government in collaboration with researchers, policy makers and entrepreneurs shall develop the structured system that enable them sustainably carry out very important goals relation to migrants. Most importantly, local and international smugglers and traffickers shall be brought to the law and severely punished for their acts to discourage others from engaging in the same illegal activity. Society at large should cooperate with law executive bodies to identify traffickers and bring them to justice. Stricter laws and policies should be put in place and the public made aware of the existence of such laws.

## Limitation and future implication

In conducting this study, the usage of a structured instrument, trained data collectors and supervised field workers to collect data from randomly selected migrant returnees decreases the likelihood of the occurrence of bias in the study. However, there were two limitations. First, although the Amharic version of the instrument had revealed good reliability and feasibility, it was too hard to be quite sure that the translated tool had been retained their original psychometric properties in different cultural backgrounds of the study sites. Second, the finding was not supported by similar locally available researches on migrant returnees' depression disorder. Due to this, it is difficult to generalize for other contexts. Along with this, the finding of this research implied as further research shall be conducted on the following four areas; first, depression disorder often coexists with other psychological disorders such as anxiety disorders,

somatization and substance abuse. Second, still the qualitative study has to be conducted about the experience of victims in the destination countries, way of trafficking, the problem they face particularly illegal migrants at the boarder of Yemen. Third, replication of this study with a larger and representative sample size would be beneficial to see if similar results are found. The larger the sample size, the greater the credibility and generalizability to the target population. Finally, studies on psychosocial issues of families left behind and migrant's resilience power shall be surveyed.

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