Post-Conflict Mental Health in South Sudan: Overview of Common Psychiatric Disorders

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Introduction

Mental health is "a state of well-being in which every individual realizes his or her own potential, can work productively and fruitfully, and is able to contribute to her or his community"(1). Mental illness often attracts a lower priority than physical illness in post-conflict and low and middle-income societies but the two are inextricably linked. Untreated and unrecognized mental illness adds substantially to poor health. Neuropsychiatric conditions, such as depression and substance abuse, account for 9.8% of total disease in low and middle income countries, with depression the leading cause of years lived with disability (2). While probably greatly underestimated, more than 800,000 people annually commit suicide with the majority (86%) coming from low and middle-income countries (3). Additionally, untreated mental disorders are associated with heart disease, stroke, injury, and impaired growth and development in children (3). Mental illness has a profound and often underestimated impact on the health and functioning of individuals and communities across post-conflict societies.

Mental health is particularly important for South Sudan as the majority of the population has been exposed to high rates of violence, displacement, and political and social insecurity. Mental health data from South Sudan is limited. One post-conflict study from Juba found that 36% of the sampled population (n=1,242) met criteria for post-traumatic stress disorder (PTSD) and 50% for depression (4). Another study, conducted in northern Uganda and South Sudan, found the prevalence of PTSD was 46% among South Sudanese refugees and 48% among South Sudanese who stayed in the country (5). Anxiety, substance abuse, and substance abuse-related complications such as alcohol withdrawal are also frequently seen in post-conflict settings (6). Alcohol and drug abuse is a growing concern in South Sudan as increasing social freedom and access to alcohol and drugs bring increased risk for excessive use and harmful consequences (7). These studies indicate a high prevalence of mental illness in South Sudan as well as the potential for an increase in psychiatric disease as more refugees and internally displaced persons return home. As South Sudan attempts to reconcile recent memories of war with optimism for the future, we must pay close attention to its citizens' mental health.

Health care providers in South Sudan must become aware of the high prevalence of mental illness, its associated stigma, and know how to screen, diagnose and treat common mental disorders. This article provides an overview of the common psychiatric conditions seen in post-conflict societies and general medical settings with a focus on depression, PTSD, anxiety and substance (including alcohol) abuse. Brief explanations, screening questions to assess risk, signs and symptoms, and treatment suggestions are provided for each condition.

Depression

Depression is a common condition world-wide and particularly in post-conflict settings. Studies from post-conflict South Sudan found rates of depression as high as 50% (4). Untreated depression often results in neglect of personal and professional responsibilities and significantly impacts daily life. It also negatively affects the lives of families. Severe depression may lead to suicide. A study of South Sudanese ex-combatants found that 15% reported wishing they were dead, or had thoughts of self harm (8). The main symptoms of depression include **low mood (sadness) or loss of interest in usually enjoyed activities (anhedonia)** every day, most of the day for at least **two weeks** plus **four** additional symptoms listed in table 1.

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Table 1. Diagnostic Criteria for Depression (9)	
Symptoms	• **Sad or low mood OR** • **Loss of interest in usually enjoyed activities** **+ 4 or more of the symptoms included below:** • Feelings of **guilt** (feeling worthless/hopeless) • Decreased **energy** • **Motor** slowing or agitation • Poor **concentration** • Disturbed **sleep** (too much or too little sleep) • Excessively increased/decreased **appetite** • Thoughts of **harming/killing oneself** or actions that could result in death or harm to oneself
Severe depressive episode with psychotic symptoms	Severe symptoms of depression include: • **Psychosis** (loss of contact with reality): **a.** Hallucinations (seeing or hearing things other people do not see or hear) **b.** Delusions (beliefs that are firmly held despite being contradicted by what is generally accepted as reality) • **Activity level so low** that daily functioning is impossible (Severely sad mood that results in lack of desire to eat or drink or tend to personal hygiene) • **Suicide**

Screening: The following questions help to assess for depression (see table 2). The first two are adapted from the Patient Health Questionnaire (PHQ-2) screening tool, which is used to assess frequency of depressed mood and low interest in the past month. Each question is scored as 0 (NO feelings of sadness or hopelessness or continued interest in enjoyable activities in the past month) or 3 (feelings of sadness or hopelessness or disinterest in enjoyable activities nearly every day for the past month). A total score of greater than or equal to 3 is 83% sensitive and 92% specific for detecting depression (10). Risk of suicide is a serious concern so one should always ask if someone has thoughts of killing him or herself when screening for depression.

Table 2. Screening Questions for Depression	
Depression Risk (10)	1. During the past month, have you often been bothered by feeling sad, or hopeless? 2. During the past month, have you often felt little interest or pleasure in doing things? • Not at all (0 points). • Nearly every day (3 points).
Suicide Risk	1. Have you had thoughts of killing yourself? If yes, when, how often etc? 2. Do you have a plan to kill yourself? What is your plan? (This will indicate likely risk). Do you have the means (methods) to do so? 3. Have you ever tried to kill yourself? If yes, when and how? (This will give you an indication of the severity of prior attempts).

Post-Traumatic Stress Disorder (PTSD)

PTSD may result from exposure to a stressful situation of an exceptional nature (e.g. being the victim of torture, rapes or beatings, observing or acting in armed conflict, or witnessing the violent death of relatives or friends) (11). PTSD is a common disorder in individuals exposed to armed conflict and is common in South Sudan (4-6). Individuals with PTSD may experience physical symptoms associated with their stress. An example is a Sudanese refugee who presented with chronic abdominal and back pain. Medical causes were excluded and it was realized that his pain was part of his PTSD which improved with antidepressant medication (12). Depression and PTSD frequently occur together so one must screen for both conditions.

Someone **exposed to a traumatic event** has PTSD if they experience at least **one symptom from cluster B, at least 3 symptoms from cluster C**, and at least **2 symptoms from cluster D** consistently for at least **one month** and their symptoms cause significant disruption to their personal and professional life (see tables 3 and 4).

Table 3. Diagnostic Criteria for PTSD (9)	
Symptoms	CLUSTER B – **1 or more** of the following symptoms for at least **one month** • Recurrent distressing memories of the event, including images or thoughts • Recurrent distressing dreams of the event • Acting or feeling as if the trauma was recurring (includes a sense of actually re-living the event) • Intense emotional distress when exposed to something that reminds you of the trauma • Physical symptoms like rapid heart rate, sweating, and tremors when exposed to something that reminds you of the trauma
	CLUSTER C – **3 or more** of the following symptoms for at least **one month** • Avoiding thoughts, feelings, or conversations associated with the trauma • Avoiding activities, places, or people that cause you to remember the trauma • Inability to recall an important part of the trauma • Decreased interest or participation in usually important activities • Feeling disconnected from others or feeling alone when surrounded by family or friends • Limited range of emotions (rarely able to laugh or smile) • Sense of no hope for the future (e.g., does not expect to have a job, marriage, children)
	CLUSTER D: **2 or more** of the following symptoms for at least **one month** • Hypervigilance (always on guard for threats) • Easily startled or scared • Difficulty falling asleep or staying asleep • Irritability or outbursts of anger • Difficulty concentrating

Table 4. Screening Questions for PTSD (13)
If willing, encourage the patient to talk about the trauma. Some people are not ready to share their story immediately. If this is the case, it is not recommended to force a person to tell their story. The patient may begin to feel more comfortable with time and eventually be ready to discuss their experience. Start by asking questions like: *"Some people have difficult experiences like being attacked or threatened with a weapon; being raped; or seeing someone being badly injured or killed. Has anything like this ever happened to you?"* IF YES: *"In the past 3 months, have you had recurrent dreams or nightmares about this experience, or recurrent thoughts or times when you felt as though it was happening again, even though it wasn't?"*

Anxiety (Excessive worry)

While worry is normal in certain situations, it becomes problematic when the worrying is continuous, out of proportion to what is actually happening in a person's life, or interferes with normal activities (14). Depression and anxiety often occur together so it is important to ask questions about both excessive worry and depressed mood. Someone has clinical anxiety when they have excessive worry most of the day, nearly ever day for at least **6 months,** near constant worry that causes significant impairment in important areas of life, worry that is difficult to control and **at least 3** of the following additional symptoms (Tables 5 and 6).

Table 5. Diagnostic Criteria for Anxiety (9)	
Symptoms	**Continuous nervousness/worry/stress for at least 6 months** **+ 3 or more of the symptoms below:** • Restlessness or feeling like something bad is going to happen • Being easily tired • Difficulty concentrating or focusing • Irritability • Muscle tension • Sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep)

Screening for Anxiety:

Table 6. Suggested Screening Questions for Anxiety (14)
1. Have you been continuously worried or stressed for a long period of time? 2. Would you say that being stressed or worried prevents you from performing your daily activities?

Substance abuse

Excessive use of alcohol and drugs can lead to neglect of personal responsibilities, legal problems, conflict with loved ones, and danger to personal health and safety. Patients with untreated depression, anxiety, or post-traumatic stress disorder may use alcohol or drugs as a means to cope or treat their symptoms. However, alcohol or drugs may actually worsen these symptoms. Someone is abusing alcohol and drugs when **one or more** of the following symptoms occur in a **12-month** period (Table 7).

Table 7. Diagnostic Criteria for Substance Abuse (9)	
Symptoms	**One or more** of the following symptoms in a **12-month** period: • Recurrent alcohol or drug use resulting in a failure to fulfill obligations at work, school, or home (e.g. repeated absences or poor work performance; neglect of children or household). • Recurrent alcohol or drug use in situations in which it is physically dangerous (e.g. driving a car or operating a machine). • Recurrent alcohol or drug related legal problems (e.g. arrests for alcohol-related violence).. • Continued alcohol or drug use despite social or personal problems caused or made worse by their use (e.g. arguments with spouse or physical fights).

Substance Dependence

Prolonged and excessive use of alcohol and drugs can cause the body to become physically dependent on the substance. Over the long term, physical dependence can result in physical harm, medical illness, behavioral problems, and damage to personal and professional relationships. Additionally, stopping alcohol or drugs abruptly after excessive and chronic use can cause uncomfortable physical symptoms of withdrawal. Symptoms like sad mood, poor sleep, anxiety, irritability, nausea, agitation, fast heart rate, and high blood pressure are common symptoms when withdrawing from alcohol OR drugs. In the case of alcohol withdrawal, abruptly stopping alcohol after heavy use can cause seizures and delirium. Due to the life-threatening nature of alcohol withdrawal, we focus on the diagnostic criteria for alcohol dependence. Someone is dependent on alcohol when **three** or more of the following symptoms occur in a **12-month** period (Table 8).

Table 8. Diagnostic Criteria for Alcohol Dependence (9)**:**	
Symptoms	**3 or more** of the following symptoms in a 12-month period: • **Tolerance**, defined by either: (a) Need for increased amounts of alcohol to have the desired effect (b) Decreased effect with continued use of the same amount of alcohol • **Withdrawal**, as defined by either of the following: (a) Withdrawal syndrome occurs when you stop drinking alcohol (or decrease use) after heavy and chronic drinking. Withdrawal is defined by: **Two (or more)** of the following occurring **several hours** to a **few days after** stopping heavy or chronic drinking: 1. Autonomic hyperactivity (e.g. sweating or pulse rate greater than 100) 2. Increased hand tremor 3. Inability to sleep 4. Nausea or vomiting 5. Transient visual, auditory, or tactile hallucinations 6. Increased agitation or activity 7. Anxiety 8. Seizures (b) Alcohol consumption to relieve or avoid withdrawal symptoms • **Increasing use** of alcohol in larger amounts or over longer periods of time than originally intended • **Desire to stop drinking** or unsuccessful efforts to cut down or control alcohol use • **Increasing time spent** buying, consuming, or recovering from effects of alcohol abuse • **Performing poorly** or giving up important social, occupational, or personal activities because of alcohol use • **Continued alcohol use** despite physical or psychological problems that are caused or worsened by alcohol (e.g. continued drinking despite knowing that an ulcer is made worse by drinking alcohol)

Screening for substance abuse and dependence: Questions related to substance abuse can be sensitive, and patients may deny or lessen their reporting of alcohol or drug use to health care workers. A non-judgmental attitude encourages people to report their symptoms honestly. When concerned about alcohol abuse and dependence, you can use the AUDIT (Alcohol Use Disorders Identification Test) Questionnaire developed by the World Health Organization to assess risk (15). Points are assigned to each answer and then added up. A score of **more than 8** suggests a serious alcohol problem (Table 9).

Screening for alcohol withdrawal: If you are concerned that a patient is withdrawing from alcohol it is important to measure their symptoms to help you decide the amount and frequency of medication needed to avoid seizures and delirium. The Clinical Institute Withdrawal Assessment for Alcohol (CIWA) scale is a useful tool to measure the severity of alcohol withdrawal symptoms. The CIWA scale measures 10 categories of symptoms, with a range of scores from 0 through 4 or 0 through 7 in each category. The health care worker assigns a number for severity of each symptom category. Symptoms that are assessed include nausea, vomiting, tremor, sweats, headache, anxiety, agitation, tactile, auditory and visual disturbances, and orientation. Based on the symptom scale, the numbers are added up to obtain one score that indicates the severity of alcohol withdrawal. The maximum score is 67. **Minimal-to-mild withdrawal** symptoms result in a total score of **less than 8**; **moderate withdrawal** symptoms has a total score of **8 to15**; and **severe withdrawal** symptoms has a total score of **more than 15** (16). High scores are predictive of seizures and

delirium. The CIWA scale can be found in Figure 1 at the following link (17): http://www.aafp.org/afp/2004/0315/p1443.html

Table 9. Screening for Alcohol Abuse/Dependence (15)	
1) How often do you have a drink containing alcohol? 0=Never 1=Monthly or Less 2=Two to Four Times/Month 3=Two to Three Times/ Week 4=Four+ Times/ Week	2) How many drinks containing alcohol do you have on a typical day when you are drinking? 0=None 1=One or Two 2=Three or Four 3=Five or Six 4=Seven to Nine 5=Ten or More
3) How often do you have six or more drinks on one occasion? 0=Never 1=Less than Monthly 2=Monthly 3=Weekly 4=Daily or Almost Daily	4) How often during the last year have you found that you were unable to stop drinking once you had started? 0=Never 1=Less than Monthly 2=Monthly 3=Weekly 4=Daily or Almost Daily
5) How often during the last year have you failed to do what was normally expected from you because of drinking? 0=Never 1=Less than Monthly 2=Monthly 3=Weekly 4=Daily or Almost Daily	6) How often during the last year have you needed a first drink in the morning to get going after a heavy drinking session? 0=Never 1=Less than Monthly 2=Monthly 3=Weekly 4=Daily or Almost Daily
7) How often during the last year have you had a feeling of guilt or remorse after drinking? 0=Never 1=Less than Monthly 2=Monthly 3=Weekly 4=Daily or Almost Daily	8) How often during the last year have you been unable to remember the night before because you had been drinking? 0=Never 1=Less than Monthly 2=Monthly 3=Weekly 4=Daily or Almost Daily
9) Have you or someone else been injured as the result of your drinking? 0=Never 2=Yes, but not in the last year 4=Yes, during the last year	10) Has a relative, doctor, friend, or health professional been concerned about your drinking or suggested you cut down? 0=Never 2=Yes, but not in the last year 4=Yes, during the last year

Treatment Approach to Patients with Common Mental Disorders

As some medical conditions can present with or imitate psychiatric symptoms, it is important to first exclude common medical causes such as infection (malaria, typhoid, HIV), medication reactions, and toxic/metabolic or endocrine abnormalities (18). Once depression, PTSD, or anxiety is confirmed, you can consider treatment possibilities that typically include a combination of medications and most importantly psychological and social interventions. Medications may help but require close monitoring for side effects (see table 10).

Table 10. Treatment Algorithm (19)
• EVALUATE presence of symptoms • EXCLUDE common medical disorders that may cause psychiatric symptoms • CONSIDER the differential diagnoses for mental disorders based on symptoms • START MEDICATION/PSYCHOSOCIAL INTERVENTION • ASSESS RESPONSE: See the patient back in clinic → assess presence of symptoms and response to medication. • If complete resolution of symptoms → continue psychosocial intervention and medication at current dose • If partial or no improvement → increase medication dose based on guidelines and reassess symptoms • REASSESS RESPONSE frequently at the beginning of treatment: a. If complete resolution of symptoms → continue medication at therapeutic dose for the recommended time frame depending on the condition (please see tables below). b. If no response, worsening thoughts of self-harm, or new psychotic symptoms →seek consultation with mental health expert by any means necessary (including phone or internet)

Community and Psychosocial Interventions: Psychosocial interventions in the form of assistance from religious groups, friends, family and tribal structures, are some of the **most important tools** to help patients with depression, PTSD and anxiety feel better. A review article on the mental health of South Sudanese refugees in the Diaspora found that mechanisms of coping with emotional distress, including encouraging connections with others, group social support and sharing experiences, helped to ease emotional difficulties (20). Health care providers can help patients feel better by (20):

- Focusing attention on positive things in the future and away from negative situations
- Helping patients accept difficulties in life
- Helping patients create meaning from suffering
- Focusing patients on productive activities
- Helping patients compare themselves with those who are less fortunate

Pharmacologic Interventions (19)***:*** There are few psychiatric medications available in South Sudan. Health care workers can use the following medications to treat depression, PTSD and anxiety – which should be used in combination with community and psychosocial interventions, as shown in tables 11-14.

Table 11. Pharmacologic Treatment for Depression, PTSD and Anxiety (19, 21)

	Fluoxetine	Amitriptyline	Diazepam	Chlorpromazine
Uses	Depression, PTSD, Anxiety	Depression, PTSD	PTSD, Anxiety	Severe Depression, PTSD
Common Side effects	Occurs when starting *(typically improves):* •Nausea, diarrhea, constipation •Poor sleep •Tiredness, anxiety Long-term: •Sexual dysfunction *(Treat by lowering dose)*	•Dry mouth, constipation, blurred vision, urinary retention •Fatigue, weakness, dizziness, sedation •Sexual dysfunction •Weight gain and increased appetite	•Sedation, fatigue, depression •Dizziness, ataxia, slurred speech, weakness •Forgetfulness, confusion	•Sexual Dysfunction •Dry mouth, constipation, urinary retention •Weight gain •Sedation •Low blood pressure, tachycardia • Photosensitivity
Risks of	•Skin rash	•Heart problems	•Dependence/abuse	•Involuntary

<table>
<tr><td>medication</td><td>(should stop the drug)</td><td>(QTc prolongation, arrhythmias)
•Seizures
•Liver failure</td><td>Overdose → respiratory depression → coma

• Withdrawal syndrome →irritability, tremor, hallucinations, seizures</td><td>movements
• Heat stroke
•Bone marrow suppression
• Rare seizures
•Neuroleptic malignant syndrome (Temperature >38°C, delirium, sweating, rigid muscles, autonomic imbalance)</td></tr>
<tr><td rowspan="2">Reassess</td><td>•Assess symptoms/ side effects every 2 weeks initially

•Increase by 20mg to MAX dose every 3-4 weeks if no improvement</td><td>•Assess symptoms/ side effects every week initially

•Increase by 25mg every 3-7 days to reach MAX dose if no improvement</td><td rowspan="2">•Assess symptoms/ side effects every 2-3 days initially

•Increase by 1-2mg every 2-3 days up to MAX dose if no improvement

•Should be used for (no longer than 12-16 weeks) given high abuse/ dependence potential

•Taper by 1-2mg every 3-7 days as withdrawal/ seizures can occur if stopped abruptly</td><td rowspan="2">•Assess symptoms and side effects every 1-2 days initially

•Increase by 20-50 mg/day every 3-4 days

•Start lower/titrate slower in older patients

•Taper over 6-8 weeks to avoid rebound psychosis</td></tr>
<tr><td colspan="2">•Clinical response may be delayed up to several weeks after initiation

•Taper medication over >4 weeks) as withdrawal syndrome can occur if stopped abruptly</td></tr>
<tr><td colspan="5">*All medications should be used with caution in women of childbearing age given possible teratogenic effects during pregnancy and lactation. The listed side effects are not exhaustive and all medications should be monitored closely.</td></tr>
</table>

Depression Treatment

<table>
<tr><td colspan="4">Table 12. Treatment for depression (19)</td></tr>
<tr><td></td><td>Medications</td><td>Starting Dose</td><td>Effective Dose Range</td></tr>
<tr><td rowspan="3">Depressed mood</td><td>Amitriptyline</td><td>25 mg/day by mouth</td><td>50 – 150mg/day
At night or in divided doses</td></tr>
<tr><td>Fluoxetine</td><td>20 mg/day by mouth</td><td>20 – 80mg/day
In the morning</td></tr>
<tr><td colspan="3">•Fluoxetine is safer with fewer side effects than amitriptyline
•If improvement in symptoms treat at same dose for 6-12 months
•Consider maintenance (long-term) treatment in patients with >3 episodes of depression</td></tr>
<tr><td rowspan="2">Psychosis</td><td>Chlorpromazine</td><td>30 – 75mg/daily by mouth</td><td>200 – 800mg/day
At night or divided doses</td></tr>
<tr><td colspan="3">•Increase dose until psychotic symptoms are controlled; after two weeks reduce to lowest effective dose (25 – 50mg IM can be used as needed for severe agitation)</td></tr>
</table>

PTSD Treatment

Table 13. Treatment for PTSD (19)			
Target Symptoms	**Medications**	**Starting Dose**	**Dose Range**
Angry outbursts **Disturbing imagery** **Severe agitation**	Chlorpromazine	30 – 75mg/daily By mouth	200 – 800mg/day At night or in divided doses. Can be used IM as needed for severe agitation/violence
Depression **Nightmares** **Flashbacks**	Fluoxetine	10 – 20mg/day By mouth	10 – 80mg/day In morning (Can start with 20mg every other day)
	Amitriptyline	10– 25 mg/day By mouth	10– 150 mg/day At night or in divided doses
Irritability **Hypervigilance**	Diazepam SECOND LINE	2– 5 mg/day By mouth	2– 40 mg/day Divided doses
	•Use medications to target symptoms described by patient •If symptoms improve continue medication for at least 6-12 months except for diazepam given dependence/addiction potential •If symptoms recur, restart therapy and continue indefinitely		

Table 14: Anxiety Treatment (19)		
Medications	**Starting Dose**	**Effective Dose Range**
Fluoxetine (Clinical response may be delayed)	10 – 20 mg/day	20 – 80mg/day In the morning
Diazepam SECOND LINE High abuse potential	2 - 5 mg/day	2 - 40 mg/day At night or in divided doses
- Fluoxetine is safer and less addictive than diazepam and preferred if available - If symptoms improve → continue fluoxetine for at least 4-6 months - Taper dose gradually as stopping abruptly can cause withdrawal syndrome - If symptoms gradually reappear after stopping treatment → Restart therapy and continue indefinitely		

Substance Abuse Treatment

Community and Psychosocial Interventions: Non-judgmental social support in the form of religious groups, friends, family, tribal structures and group meetings may help patients with substance abuse problems stop drinking alcohol and doing drugs. Health care providers can help their patients stop abusing alcohol and drugs by:

- Trying to understand what motivates someone to drink or do drugs.
- Treating underlying psychiatric illness like depression, anxiety, or PTSD. (People may be abusing alcohol or drugs to ease suffering associated with these conditions)
- Assessing whether someone is ready to stop drinking or doing drugs and providing help if they are ready
- Encouraging abstinence from drinking or doing drugs without judging their behavior
- Providing emotional and family support.

Alcohol Withdrawal Treatment

Alcohol withdrawal is a life-threatening illness with the potential for seizures, delirium, and death if untreated. See table 15 for treatment strategies.

Table 15. Treatment Algorithm for Alcohol Withdrawal (22)

- EVALUATE presence of withdrawal symptoms and day of last drink
- EXCLUDE common medical disorders that cause withdrawal symptoms
- MEASURE SYMPTOMS using the CIWA scale
    - **CIWA score < 8** → Psychosocial interventions for substance abuse
    - **CIWA score 8 – 15** →Psychosocial intervention + Outpatient alcohol detoxification:
        - Give - Thiamine 100 mg orally/day
        - Consider folic acid and multivitamin if available
        - Give Diazepam 10 - 20 mg every 6 hours for 4 doses, then 5-10 mg every 6 hours for 8 doses
    - **CIWA score of >15** → Consider admission to the hospital for detoxification→
        - Give Thiamine 200 mg IM/IV x 1 (then 200mg orally twice daily), Folic acid 1 mg orally daily, and a multivitamin orally daily
        - Measure CIWA every 1 - 2 hours
            - If CIWA > 10 → GIVE Diazepam 10 - 20mg orally
            - Re-measure CIWA 1 hour later (wake up patients to assess withdrawal even if sleeping)→ if CIWA >10 → Give Diazepam 20mg
            - Give Diazepam 10 - 20mg every 1 – 2 hours based on symptoms measured by CIWA score
        - Reassess response every hour at beginning of treatment:
            - If the patient consistently has complete resolution of symptoms → begin to reduce frequency of diazepam slowly over several days
            - If no improvement in symptoms despite treatment with Diazepam, CIWA persistently >15 for several hours, seizures, or persistent delirium → seek consultation with expert by any means necessary (including phone or internet).

* Monitor closely for respiratory depression when treating alcohol withdrawal with Diazepam. Fluid resuscitation and correction of electrolyte abnormalities are important components of alcohol withdrawal management.

Conclusion

Exposure to prolonged violence, displacement, and hardship has put the people of South Sudan at risk of emotional distress. Therefore, it is essential for health care providers to focus on both physical and mental well-being. Advocacy, training, and research are needed to identify the scope of mental illness and provide culturally-meaningful interventions to treat common mental disorders in South Sudan. Future steps to strengthen mental health services in South Sudan include:

- **ADVOCACY**: Reducing stigma associated with mental disorders, creating awareness about mental illness, and advocating for appropriate mental health services are necessary steps to reduce the burden of psychiatric disease. Advocacy should occur at multiple levels including:
    - Lobbying the government to create a comprehensive national mental health policy that prioritizes mental health interventions that are mindful of the cultural context and meet the needs of the population.
    - Lobbying the Ministry of Health to expand psychiatric drug coverage. Currently there is a limited selection of drugs available to treat common mental disorders. Amitriptyline is one of the few anti-depressants that is widely available; however, fluoxetine (also available on the WHO formulary) is safer and easier to administer and can be used to treat the debilitating effects of depression, anxiety and PTSD.

    - Educating the public in an effort to reduce stigma and create awareness about signs and symptoms of mental illness. Early detection and treatment of psychiatric illness will serve to reduce the damaging personal, social, and public health consequences of untreated mental disorders.
- **TRAINING**: Health care providers at all levels should be trained to screen, diagnose, treat, and seek help for individuals suffering from depression, PTSD, anxiety, substance abuse, or withdrawal. Training is particularly important for:
    - General practitioners who are exposed to a high prevalence of mental illness in their everyday practice.
    - Medical graduates/students who should be encouraged to pursue further training in mental health. Psychiatrists need to be multi-talented, able to differentiate mental illness from medical illness, manage psychiatric medications and their side effects, and make patients feel comfortable about revealing deeply personal fears and concerns. It is critically important to invest in the mental health workforce of South Sudan in order to meet the mental health needs of an expanding population exposed to significant armed conflict and trauma. Additionally, psychiatrists will be an important source of expertise and referral for the severely mentally ill and for patients who do not respond to standard treatments.
- **RESEARCH**: Currently, there is limited mental health data from South Sudan. Scientifically-rigorous information on prevalence of mental disorders, culturally-validated screening and diagnostic tools for common mental disorders, and effective traditional and non-traditional mental health interventions are needed to provide effective, culturally-specific care to the citizens of South Sudan.

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