ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF MEDICINE

DEPARTMENT OF PSYCHIATRY

EXPLORING HEALTHCARE PRACTITIONERS' KNOWLEDGE, ATTITUDE AND PRACTICE IN DIAGNOSING AND TREATING FUNCTIONAL NEUROLOGIC DISORDER AT BLACK LION SPECIALIZED HOSPITAL ADDIS ABABA, ETHIOPIA: QUALITATIVE STUDY

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A THESIS REPORT SUBMITTED TO THE DEPARTMENT OF PSYCHIATRY, SCHOOL OF MEDICINE, COLLEGE OF HEALTH SCIENCES, ADDIS ABABA UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR A SPECIALITY CERTIFICATE IN MASTER'S DEGREE IN CLINICAL PSYCHOLOGY

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EXAMINER (EXTERNAL) ---------- **DATE** ----------

ACRONYMS AND ABBREVIATION

CD---Conversion disorder

DSM---Diagnostic Statistical Manual of mental health disorders

FND ---Functional neurologic disorder

FNEA---Functional Non-Epileptic Attacks

GPs----General practitioners

ICD---International Classifications of Disease

KAP---Knowledge, Attitude, and practice

MUPS---Multiple unexplained psychosomatic complaints

PN--- participants from neurology

PP--- Participants from psychiatry

TASH---Tikur Anbessa Specialized Hospital

WHO---World Health Organization

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ABSTRACT

Background: Functional neurologic disorder (FND) is a common disorder that requires a multidisciplinary approach to diagnose and treat it. Failing to properly diagnose and treat FND can lead to poor outcomes and unnecessary financial burden for patients. More research is needed on the knowledge, attitude, and practice of healthcare practitioners regarding FND, particularly in Ethiopia.

Objectives: To explore the knowledge, attitude, and practices of healthcare professionals involved in the diagnosis and management of functional neurological illness in Tikur Anbessa Hospital, Addis Ababa, Ethiopia.

Method: A qualitative methodology was used in this research utilizing a semi structured interview .a purposeful sample of neurology and psychiatry residents were interviewed face to face using audio record at Tikur Anbessa specialized hospital, Addis Ababa, Ethiopia. A total of 12 residents participated in this study.

Result: Participants had underlined that FND is caused by a problem with how the brain functions rather than a structural impairment in the brain. A complete medical history was described by the participants as necessary for ruling out other illnesses and boosting confidence in a diagnosis of FND, which is significant because early detection can lead to improved outcomes. Participants communicated that they struggle with the ambiguity of FND and may mistakenly express skepticism or overlook patients' concerns.

Conclusion: Functional neurological disorder (FND) is a complex disorder that manifests in a variety of neurological symptoms, including weakness, tremor, seizures, and sensory disturbances. These symptoms are unpredictable and fluctuating, which can make the disorder difficult to diagnose and manage. FND is not caused by damage to the brain's structure, but rather by a disruption in the way the brain functions. A thorough medical history is crucial for ruling out other potential causes of neurological symptoms and increasing confidence in an FND diagnosis. Early diagnosis and management of FND require a multidisciplinary approach involving neurologists, psychiatrists, and mental health professionals. Psychological interventions, such as cognitive behavioral therapy (CBT), have been shown to be effective in managing FND symptoms and improving patient outcomes.

CHAPTERONE:

1. INTRODUCTION

1.1. Background of the study

Functional Neurological Symptom Disorder refers to the presence of neurological symptoms in the absence of organic neurological disease. Different terminologies are used both in the neurology and psychiatric settings and include psychogenic-non epileptic seizure, multiple unexplained psychosomatic complaints (MUPS), functional disorder, Hysteria, conversion disorder, somatization, dissociative motor disorder, hypochondriasis, factitious disorder, Munchausen syndrome and malingering (Naidoo & Bhigjee, 2021). It was formerly known as hysteria and is considered a psychiatric disorder in the International Statistical Classification of Diseases and Related Health Problems (*Diagnostic and statistical manual of mental disorders, 4th ed*, 1994).

The terminology used shows connotations regarding the causes and how HCPs at tertiary level hospitals think about the problem and influences patients' reactions and perceptions towards the illness.(Naidoo & Bhigjee, 2021). It is also given to explain physiological causes, such as physiological tremor, psychological reasons, such as paraesthesia during a panic attack, behavioral factors, such as excessive resting, and cultural or external factors, such as compensation and the welfare states contributing to symptoms. (Stone et al., 2005). Although FND is usually managed by a multidisciplinary team of neurologists, psychologists, psychiatrists, nurses, and allied health professionals in the best case scenario, patients with FND, may receive inequitable care and may not obtain multidisciplinary intervention. (Barnett et al., 2020)

According to (Dent et al., 2020), *c*onversion disorder perceived as a psychogenic reaction in the early 20th century has been challenging for years for clinicians to diagnose and treat. Different HCPs have suggested different opinions about the pathogens and etiology of FND such as neurologists and psychiatrists regarded it as a result of functional problems in the nervous system psychogenic factors with preceding stress and a predisposing factor. And also, neurologists and psychiatrists believe that a person develops FND due to personality traits and other mental health conditions (de Schipper et al., 2014). On the other hand, there are professional controversies between psychologists, psychiatrists, and neurologists regarding diagnosing and treating FND claiming it's due to subconscious behavior, dysfunction of the nervous system together with psychogenic factors, and whether there is a need for physical treatment or only psychiatric or both. (de Schipper et al., 2014)

Several organizations from all around the world have reported the views and clinical procedures

of medical specialists regarding individuals with FNDs, For example, negative attitudes from healthcare professionals towards FND patients are common and levels of self-perceived knowledge are reported as low. And also, many medical personnel lack confidence when it comes to treating people with FND. Additionally, due to this insufficient healthcare professional understanding, patients with FND often experience poor communication and lack of a proper diagnosis(Lehn et al., 2019).Additionally, there is also an issue regarding communicating the diagnosis before sending further investigations-(Espay et al., 2009). Another study has suggested that functional neurological disorders and those who have them have been disregarded, vilified, and mocked by the medical community (Lehn et al., 2019).

According to Robson and Lian (2017) as cited in Karina Bennett et al. (2021) People with non-epileptic seizures have often been through negative experiences of healthcare including being disbelieved. it also mentioned as it might be because healthcare practitioners receive insufficient training in the diagnosis and treatment of FNDs. Additionally, other factors include ambivalence about whether these issues fall under their purview or not and training in a lesion-based disease model for neurological illnesses. Additionally, many medical personnel find it challenging to assist these individuals. (K. Bennett et al., 2021).

Studies show that conversion is a common problem following headaches and is ranked the second most frequent reason for neurologist visits. At least 5%–10% of fresh neurological consults are for more precisely identified FND. Functional cases make up anywhere between 20 and 40% of patients seen in specialized neurological clinics and present with a variety of symptom profiles, such as movement problems and seizures (Espay et al., 2018). It is also reported to be more common in rural populations, persons of lower socioeconomic status, and those with minimal medical or psychological knowledge(Oyama et al., 2007).

According to Kebede and Alem (1999),the somatoform disorder is the most common mental health disorder accounting for3.1% of the population in Addis Ababa however, there are no sufficient studies done in Ethiopia showing HCP's knowledge, attitude, and practice in diagnosing and treating FND.

1.2 Statement of the problem

The diagnosis of FND is based on clinical data that demonstrate a clear incompatibility with established neurological illness. A health care provider with competence in the diagnosis of neurological problems should usually elicit and interpret these in the context of the entire clinical picture. (*Diagnostic and statistical manual of mental disorders, 4th ed*, 1994).

Functional Neurological Disorder (FND) is a complex and multifaceted condition that affects people from all parts of the world. FND patients often receive incorrect diagnoses, face stigma, and experience

delays in diagnosis and treatment, with up to 50% of patients not improving with treatment(Carson et al., 2016).Healthcare professionals such as general physicians frequently misdiagnose FND due to an expectation of unusual symptom presentations or reliance on recent psychological co-morbidity or stress in their diagnoses(K. Bennett et al., 2021).

Improving clinical encounters for FND patients is important not only for effective treatment but also for improving the overall quality of medical care, particularly given the current quality-of-care crisis and the dehumanization patients often experience in biomedical settings(Canna & Seligman, 2020) However, while the WHO Mental Health GAP Intervention Guide for Psychiatric, Neurological, and Substance Use Disorders in Nonprofessional Care Settings (*mhGAP training manuals: for the mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings – version 2.0 (for field testing)*)is used in Ethiopia for educational purposes and practices including diagnosis and treatment of FND, there is a lack of sufficient data on FND healthcare practitioners' knowledge, attitudes, and practices in the country.

This knowledge gap could lead to misdiagnosis and a lack of appropriate multidisciplinary care for FND patients, resulting in costly investigations and prolonged suffering. Descriptive analyses of outbreaks of mass psychogenic disorder in Ethiopia have shown a poor understanding of psychogenic disorders at the local health center level, with some efforts made to provide education and training to clinical staff (Jebessa et al., 2022). Therefore, there is a need to investigate the knowledge, attitudes, and practices of health care practitioners in Addis Ababa, Ethiopia who directly interact with FND patients at Tikur Anbessa specialized hospital.

By addressing the gaps in knowledge and understanding primary healthcare practitioners' perspectives, this research aims to contribute to the development of effective strategies for diagnosing and treating FND in Ethiopia.

1.3 Objectives

1.2.1. General Objective

The objective of this study is to explore health professionals' knowledge, attitude, and practice in treating functional neurologic disorders.

Specific objectives

1. To explore the current level of knowledge of health professionals regarding Diagnosing and treating functional neurological disorders.

2. To explore the attitude of health professionals towards diagnosing and treating patients with

functional neurological symptom disorder

3. To investigate the current practices used by health professionals in diagnosing and treating functional neurological disorders.

1.4 Research Questions

This study will answer the following questions:

- What are the current knowledge levels of neurology and psychiatry residents at Tikur Anbessa Hospital regarding diagnosing and treating patients with functional neurological symptom disorder?
- What are the attitudes of neurology and psychiatry residents towards diagnosing and treating patients with functional neurologic disorder?
- What are the current practices of neurology and psychiatry residents in diagnosing treating functional neurological symptom disorder?

1.5 Significance of the study

This study is essential for various reasons such as to improve Patient Outcomes that FND is a complicated condition that can be challenging to diagnose and treat. Understanding healthcare practitioners' KAP might aid in identifying areas where education and training may be required to improve patient outcomes. For example, if healthcare practitioners are unfamiliar with FND, they may misdiagnose the disorder or delay necessary treatment, resulting in inferior patient outcomes. It also helps in reducing Stigma: because FND is difficult and poorly understood, it is frequently stigmatized. Negative views concerning FND among healthcare practitioners may prolong this stigma and contribute to patients feeling ignored or invalidated. The study also helps to detect unfavorable attitudes and seeks to alleviate them through education and training by researching healthcare practitioners' KAP.

Additionally, it is essential to identify care barriers: Healthcare practitioners who lack the required skills or expertise to identify and treat FND may provide a barrier to care for patients suffering from the disorder. Understanding healthcare practitioners' KAP allows concerned bodies to identify barriers to care and seek to address them through education and training. FND is a complex condition that necessitates a diverse treatment approach. Understanding healthcare practitioners' KAP might assist in identifying areas where collaboration and coordination across healthcare providers may be required to build effective treatment regimens. For example, if healthcare providers are unfamiliar with the psychological components of FND, they may fail to send patients to mental health specialists who can provide appropriate treatment.

CHAPTERTWO:

2. LITERATUREREVIEW

2.1 Theoretical Framework of functional neurologic disorder

The term conversion initially originated from psychoanalytic theory which states that the unconscious intrapsychic conflict is converted into physical symptoms (Association, 2022), assessment done by psychoanalysts for 54 patients with conversion disorder shows to have high incidence of physical and sexual abuse compared to 50 patients with affective disorders. This concept was further elaborated by Jean Martin Charcot in the 19th century at the Salpêtrière in Paris using the term Functional through hypnosis to understand the presentation of their symptoms.(Allin et al., 2005).

According to the numerous hypothesized etiologies, functional neurological disease (FND) has been known by many different titles throughout history, including hysteria, nervous system disorder, conversion disorder, psychogenic or non-organic illness, functional neurological disorder, etc. the aspects in changing conceptualization of FND includes supernatural cause of FND,FND due to reproductive organ (hysteria), conversion and dissociation and, cognitive and neurocircuitry model (Raynor & Baslet, 2021).

The term "hysteria" was first used in Greek texts to describe symptoms caused by a "wandering uterus." This organization promoted the notion that hysteria was an illness that primarily affected women and later also affected men(Cassady, 2019).

An online survey conducted in London on the preferred terminologies for functional seizure shows 'Pseudo seizures,' 'conversion disorder,' including ‘hysteria’ were all among the most offending terms. For phrases implying a psychological etiology ('pseudo seizures,' 'dissociative seizures,' 'psychogenic seizures,' and 'hysteria,' expectations of not recovering following psychological treatment were lowest According to the findings of this survey, the three most chosen terminology for describing functional seizures are "FNEA," "dissociative seizures," and "functional seizures." The least offending word was 'nonepileptic attack disorder,' with 'FNEA' and 'functional seizures' tied for second place (Loewenberger et al., 2020)

The cognitive and neurocircuitry model implies the pathophysiology of functional neurological disorder (FND) causes its symptoms. This model suggests that FND pathology reflects disruption throughout and across multiple brain circuits, which impacts certain components (Drane et al., 2020).

2.2. Prevalence of FND

Transient functional neurological symptoms are prevalent, but the disorder's exact incidence is unknown.

Individual persistent functional neurological symptoms are predicted to affect 4-12/100,000 people per year, according to research conducted in the United States and Northern Europe (Association, 2022).FNDs have a considerable impact on patient disability as well as working life functioning even after long-term follow-up (Carson & Lehn, 2016b). Rates of psychological co-morbidity are likewise consistently greater than rates of equivalent neurologic illnesses, with depression rates ranging from 20% to 40% (Carson & Lehn, 2016b) and maybe a little more anxiety. The prevalence of a present anxiety condition was 38% in Feinstein et al.'s (2001) study.(Carson & Lehn, 2016a)

2. 3. Clinical features

According to National Organization for Rare Disorders, 2023, FND patients might have a wide variety and mix of somatic, sensory, and/or cognitive symptoms. The most frequent are motor dysfunction, Limb weakness/ paralysis Functional movement abnormalities, such as tremor, spasms (dystonia), jerky movements (myoclonus), and walking difficulties (gait dysfunction), Symptoms of functional speech, such as whispering (dysphonia), slurred or stuttering speech, Sensory dysfunction includes altered sensation, such as numbness, tingling, or pain in the face, chest, or limbs, Functional visual symptoms, such as loss of vision or double vision, are common on one side of the body, Alternate states of consciousness, Dissociative (non-epileptic) seizures, blackouts, and fainting: these symptoms might overlap and appear to be epileptic seizures or fainting (syncope). Symptoms frequently change and may differ from day to day or be consistent (National Organization for Rare Disorders, 2023).

2.4. Diagnosis

There is no single test that can confirm a diagnosis of FND. Because FND can coexist with other illnesses, a doctor will evaluate health, medical history, and family history to rule out any neurological or other conditions that may cause symptoms. To develop a diagnosis, a neurologist, psychiatrist, or psychologist may search for specific patterns of symptoms or indicators. Physical, neurologic, and psychiatric evaluations, as well as imaging scans, are used to rule out other conditions and investigate symptoms like tremors, weakness, walking, and eyesight(Stone et al., 2016).

2.5. Treatment

In treating FND there has to be an established diagnosis; in most cases, the diagnosis can be made definitively with a neurological examination, rather than as an exclusionary diagnosis; and the illness is possibly treatable. The effectiveness of diagnostic delivery can be improved by explaining to patients how the diagnosis was reached, emphasizing the specific findings on examination that make it clinically definitive. This step's success ensures that the patient leaves with a validation of the neurological symptoms and/or disability, develops confidence in the diagnosis, avoids the need for alternative medical

opinions, also creates a sense of partnership with the neurologist, and at most an understanding of the rationale for tailored multidisciplinary management, which may include psychological interventions (Espay et al., 2018).

2.6. Knowledge of healthcare practitioners in diagnosing and treating FND

Medical practitioners often diagnose and treat disorders in the function of the body/or structure of body organs and systems that are being attributed by pathological disturbances and there is a need to incorporate both scientific and social concepts of an illness (Varley et al., 2023).

A study done in Nigeria on pediatrician's knowledge of conversion disorder in children reported that pediatricians do not have satisfying knowledge of CD in children which will result in stigmatization of the patient and caretakers and results in unnecessary costs and invasive investigations. In this study, it shows that there isn't a significant difference as a result of years of experience, Gender and presence psychiatric care from those with good knowledge and without.(Ndukuba et al., 2015). There is also a dilemma among HCP whether to take time and inform a patient about the cause and label the diagnosis of CD or just inform them that there is nothing serious illness and link them to psychotherapy or physical therapy. There is also an assumption that there is an organic cause for the disorder which causes patients with FND to undergo invasive procedures and surgical operations. The HCP may also believe that they don't have the skills to treat CD and perceive that the patient is in the wrong place and better be treated by mental health professionals. There is also a perception among HCP that the patient might be deceiving them and have secondary gain (Kirschner et al., 2012).

2.7. Attitudes and Perceptions of HCPs in Diagnosing and treating patients with FND

A Systematic review conducted by Hanssen (D.J.C. Hanssen etal(2021) shows that HCP's attitude on disengagement in patient's problems has a negative effect on intervention in the health care practice. Language of using psychiatric terms is also barrier to providing appropriate care. Additionally, the fear of overlooking the disorder, and patients asking for symptom relief, challenges professionals to diagnose and treat patients with FND.(Hanssen et al., 2021)

The Assumption that neurologists tend to take care of the body and psychiatrist treats the mind impacts treatment negatively and a patient is responsible for the illness and to be blamed if he/she has a diseased mind, and less responsible if he/she has a diseased body. There is a public stigma where clinicians avoid and preserve themselves from devoting their time to seeing patients with FND. This could be mainly due to patients with FND needing much more time than other patients and might cause

discomfort if not have expertise in the area. (Rommelfanger et al., 2017). Retrospective analysis was done at a tertiary hospital in South Africa (shows that there is a need to practice evidence based and cost-effective approach to minimize unnecessary examinations and uncertainty to differentiate FND if there are coexisting organic conditions. It also suggests that a Clinical practice guideline is very essential and to have interdisciplinary and multidisciplinary teams provide diagnosing and providing care with positive outcomes as there is a lack of training in FND among healthcare practitioners.(Naidoo & Bhigjee, 2021).

Cross-sectional survey done in Egypt with 152 physicians from various specialties, including psychiatry, neurology, and internal medicine shows Physicians' knowledge of FNSD was low, with only 44% of participants reporting a good understanding of the condition. Most physicians (86.8%) were concerned about missing an organic disorder when diagnosing FNSD and Psychiatrists were the most confident in diagnosing FNSD and the most comfortable discussing it with patients. The majority of physicians (72.2%) reported receiving no formal training in FNSD during their medical education (Alamrawy et al., 2023)

CHAPTER THREE:

3. METHODOLOGY

3.1 Study Design

This study used qualitative research design, employing thematic analysis. The research aimed to explore the subjective knowledge, attitudes, and practices of healthcare professionals involved in the diagnosis and management of functional neurological illness in Tikur Anbessa specialized Hospital.

3.2 Study site

The study was conducted in Addis Ababa Tikur Anbessa specialized hospital. TASH is the largest governmental specialized hospital in the country where patients with functional neurological symptom disorders are referred to for better treatments.

3.3 Target Population

The target population of this study are neurology and psychiatry residents at Tikur Anbessa specialized hospital.

3.4 Sampling techniques and size

A purposive sampling technique was used to select the participants depending on their experience and profession to address the research questions. Participants of this study were neurology and psychiatry residents involved in the management of functional neurological symptom disorder. The sample was 12 participants which was determined based on data saturation.

3.4 Eligibility

Inclusion criteria:

1. Healthcare practitioners: Neurology and psychiatry residents were actively involved in diagnosis and treatment of patients with FND as they are initial contact person for screening and treatments.
2. Practice setting:

   -Neurology residents: Residents working (studying) at TASH with a neurology department or under the supervision of neurology specialists.

   - Psychiatry residents: Residents practicing at TASH.
3. Availability and willingness to participate:

- Participants who express interest in participating in the study and are available to commit to the time and effort required for data collection and follow-up interviews.

Exclusion criteria:

1. Healthcare practitioners who are not currently practicing or are on extended leave during the study period.
2. Healthcare practitioners who are unable or unwilling to commit to the time and effort required for participation, such as due to heavy clinical workload or personal constraints.
3. Healthcare practitioners who have previously participated in a similar study on FND to avoid potential data duplication or bias.

3.5 Data collection tool

In order to explore KAP of health care practitioners in diagnosing and treating patients with functional neurological symptom disorder data collection was facilitated through in-depth, semi-structured interviews with the study participants. The interview questions were developed by looking in to literature review and different researches in the area. The interview was conducted face to face and audio-recorded to ensure proper documentation. The interview was conducted in the English language, which is the academic and working language of Tikur Anbessa Specialized Hospital.

3.6 Method of Data Analysis

The data collected from the interviews was transcribed verbatim and analyzed through thematic analysis to identify the major themes that emerge from the interviews. The data was analyzed using NVIVO. The interview data was coded, and categories were developed independently and then collapsed into themes. The data were interpreted, analyzed and presented using direct quotes from the interviews that support each theme.

3.7 Data collection procedure

The Addis Ababa University's department of psychiatry authorized the project. The department of psychiatry provided a letter of support. After explaining the study's goals to each respondent, their informed consent was obtained. No participant's names or other personal information had been gathered, other from data deemed essential for the study's goals. The interview was conducted using in depth semi structured interview guide and recorded electronically and transcribed. The data collected is stored confidentially with protected passwords. Participants in the study had been informed of their choice to quit or decline participation as well as their ability to ask questions.

3.8 Ethical consideration

Ethical approval was obtained from the psychiatry department’s research ethics committee before conducting the study. Informed consent was also obtained from all participants, ensuring they have

understood the purpose of the study, their rights, and the voluntary nature of participation. Participants' confidentiality and anonymity was maintained throughout the research process, and any identifiable information was removed or anonymized during data analysis and reporting.

CHAPTER FOUR:

4. RESULTS

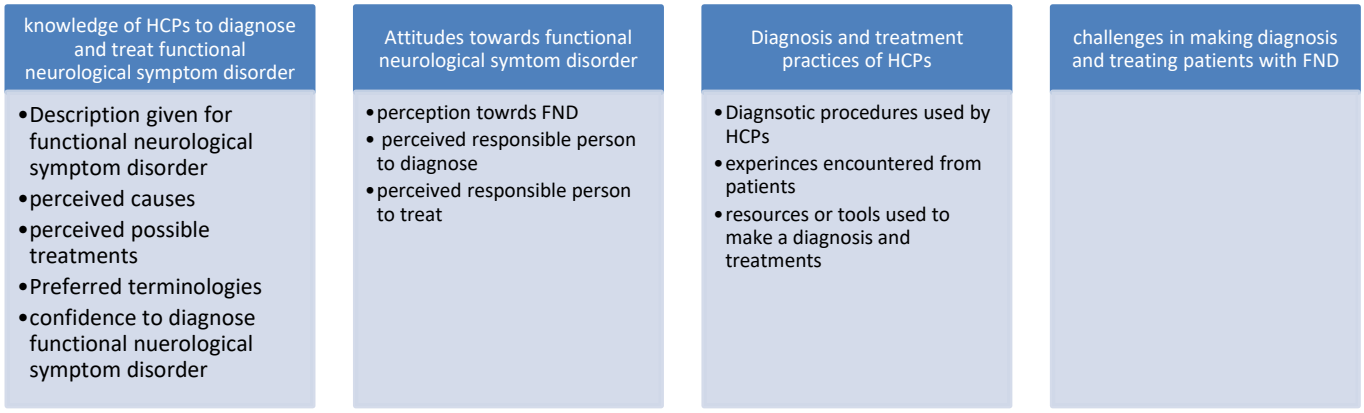
Introduction

This study intended to explore healthcare Practitioner's Knowledge, Attitude and Practice in Diagnosing and Treating Functional Neurologic Disorder at Black Lion Specialized Hospital Addis Ababa, Ethiopia: a qualitative Study. The study used qualitative assessment using structured interview descriptive across twelve (12) sample participants. The result obtained from the finding indicates the knowledge attitude and practice in diagnosing and Treating Functional Neurologic Disorder.

4.1. Demographic Representation of the participants

The result of this study was obtained from 12 participants. Six of them are neurology residents and the remaining six of them are psychiatry residents. From the participants, four of them were female and 8 were male. Regarding to the age category's the age's ranges from 28 to 36 years. Eight participants were from 27-30 years but the other four were from 32-36. They are of different age ranging from 28-36 years. Respondents were having work experience ranging from 2 to 5 years as general practitioner and residents from academic year one up to year three. The education backgrounds of such participants were neurology and Psychiatry residents.

Themes and Sub themes



1.2 Knowledge of HCPs to diagnose and treat patients with FND

This theme explains Neurologist's (PN) and psychiatrists (PP) participant's understanding of what FND is, which is explained through describing the causes, common presentations or features and their perception towards the best treatment, preferred terminologies with the reason for choosing the term and reported level of confidence in making diagnosis and treating patients with FND.

4.2.1 Description given for Functional neurological disorder

The findings in this research shows that participants have described that Functional neurologic symptom disorder is a condition that has similar neurological symptom presentations such as weakness, numbness, tremors, or seizures and is expressed as a disorder of hardware where the problem is in the function of the nervous system where there is no structural damage and that it cannot be explained objectively with physical examinations. The finding of this research indicated that participants have indicated that functional neurological disorder (FND) is classified as an 'acute presentation of neurological dysfunction involving the motor and sensory nervous system. Despite these symptoms, medical investigations do not show any structural abnormalities, indicating that symptoms may instead be the result of an issue with the functioning of the nervous system.

Moreover, Interview analysis of the primary data collected revealed that participants have explained that neurological disorders are medically defined as disorders that affect the brain as well as the nerves found throughout the human body and the spinal cord. Structural, biochemical or electrical abnormalities in the brain, spinal cord or other nerves can result in a range of symptoms whereas FND is not identifiable and can't be localized at any of this part of the body. Participants have emphasized that the symptoms are of functional in nature than organic.

''Mainly we define it as if it is not defined with well-known neurologic neuro localization or clearly

defined pathology then we define it as neurologic functional disorder'' (PN2)

''Imaging will be done with spinal MRIs or brain MRIs. And there may not be any structural issues that can explain the patient's condition. So in that case, this could be due to functional disorder'' (PN4).

4.2.2 Preferred terminologies used for diagnosis of FND

Different terminologies have been used among healthcare practitioners which is chosen depending on patient's symptom presentations such as for example functional gait disorder or functional weakness is used among neurology residents if a patient is presented with problem with movement or walking. Functional neurological symptom disorder and conversion disorder are mostly used by both neurologists and psychiatrists in this study. participants in this study informed about that the term conversion disorder was used by Sigmund Freud and also is a preferred terminology among some residents as it explains the etiology to the patients, and is less stigmatizing term but one participants from neurology department have mentioned both the previous and current term used is not descriptive in disclosing the diagnosis to patients as it is directly used or quoted from literatures without being translated into local language where patients fails to understand.

''Sometimes most of the time we say functional neurologic disorder, sometimes we say conversion disorder but most of the time we say functional neurologic disorder mainly we are trained on that way''.

4.2.3 The key features of functional neurological symptoms disorder

Participants in this study announced that Patients with functional neurologic symptom disorder (FND) often show symptoms affecting movement, physical functions, and neurological systems, such as seizures and weakness. These symptoms occur during both neurological and psychiatric consultations Signs and symptoms vary, depending on the type of functional neurologic disorder, and may include specific patterns. Typically, this disorder affects movement or senses, such as the ability to walk, swallow, see or hear. Symptoms can vary in severity and may come and go or be persistent.

The participants in the interview said that the key features of this disorder are, patients present with motor symptoms, for example, patients might present with epilepsy, seizure, loss of consciousness, hemiparesis,

hemiplegia, monoplegia, visual loss, so there will exist certain physical symptoms, certain motor and also neurologic kind of symptoms and those are the features that patients present with For example, patients may present with impaired coordination or balance, weakness, paralysis of an arm or a leg, loss of sensation in a body part, seizures, unresponsiveness, blindness, double vision, deafness, aphonia, difficulty swallowing, sensation of a lump in the throat, or urinary retention. Patients may have a single episode or sporadic repeated ones; symptoms may become chronic. Typically, episodes are brief. Functional movement disorder (FND) affects movement of the body key features may include: Leg and arm weakness or paralysis, Tremor, Sudden, brief involuntary twitching or jerking of a muscle or group of muscles (myoclonus), Involuntary muscle contractions that cause slow repetitive movements or abnormal postures (dystonia), Problems with walking motion (gait), posture, or balance, Spasms and contractures (in which the tendons become fixed in awkward or uncomfortable positions), Muscle stiffness and others.

4.2.4 Perceived causes of functional neurological symptom disorder

All the 12 participants who participated in the interview confirmed that FND is not caused by significant structural damage in the brain other than functional. The exploration result shows that the exact cause of FND is unknown. The specific causes of neurological problems vary, but Stressful situations may cause underlying psychosocial issues in patients with functional neurological disorders (FND). Although these psychological problems are unconscious, they materialize as neurological symptoms like paralysis and convulsions. This is due to the fact that internal mental health issues within the patient, as opposed to actual neurological system damage, are the primary cause of FND. FND has no known cause. However, stress or a mental health disorder or physical trauma can trigger FND. It can also occur with no known trigger. Certain factors may make a person more susceptible to FND:-Having another neurological condition which include a wide range of disorders, such as epilepsy, learning disabilities, neuromuscular disorders, just to name a few. Some neurological conditions are congenital, emerging before birth. Other conditions may be caused by tumors, degeneration, trauma, infections or structural defects. Regardless of the cause, all neurological disabilities result from damage to the nervous system. Depending on where the damage takes place, determines to what extent communication, vision, hearing, movement and cognition are impacted, additionally having a mental health condition, chronic pain or fatigue ongoing life stress, Childhood abuse or neglect could contribute as cause as per interviewee's statements.

Participants have communicated that there are also many recognized neurological disorders, some relatively common, or rare such seizure disorder that can co-occur and can be considered as triggering

factor. Mental disorders, on the other hand, are "psychiatric illnesses" or diseases which appear primarily as abnormalities of thought, feeling or behavior, producing either distress or impairment of function.

''Usually, these patients might have deep seated psychological issues, obvious precipitant stresses might be there'' (PN1).

''So many psychological stresses and problems can lead to but I find trauma or especially sexual trauma and early trauma as a main predisposing factor for this conditions'' (PP7).

According to one participant from neurology residents, high levels of stress can act as a catalyst for FND symptoms, amplifying existing neurological issues. When patients suppress their emotions or feel trapped in situations that cause distress, it can worsen their FND symptoms. Some patients may unconsciously intensify their symptoms to seek attention or support, particularly if they feel neglected or overlooked. The manifestation of FND symptoms can be exacerbated by emotional factors, leading to a more pronounced presentation. The exaggeration of symptoms may serve as an unconscious coping mechanism for dealing with stress, emotional distress, or a perceived lack of attention.

''usually tend to be caused by high periods of stress or when patients are in situations which they don't like to be in but are unable to express it, there is already an illness and they don't feel like they are being given enough attention so they manifest more, they might show more severe symptoms and that's what is actually happening'' (PN6).

While some healthcare professionals believe that functional neurological disorders (FND) can be caused by a desire for secondary gain, either from the institution or from caregivers, others disagree. One participant from neurology residents, for instance, has stated that they have not observed patients developing FND solely for financial benefits. However, acknowledge that secondary gain may be a contributing factor in some cases.

''I haven't seen patients who come up with this type of disorders for economical gain, but that can be a consideration too'' (PN5).

4.2.5 Perceived possible treatment for FND

Participants have given an account of recognizing the underlying mechanism of FND and making an accurate diagnosis are the first steps towards treating it. A neurologist will perform a thorough examination to rule out any structural anomalies or neurological conditions. They also have accentuated for FND, a multidisciplinary approach involving social workers, psychiatrists, and neurologists is seen to be the most successful course of treatment. While psychiatrists handle the psychological aspects of the condition, neurologists specialize in neurological examination and treatment. Social workers support

patients as they navigate the social difficulties related to FND. Medication may occasionally be recommended to treat co-occurring anxiety or depression symptoms, which can make FND symptoms worse. The primary strategy for FND, as highlighted by all 12 individuals, is psychotherapy or psychiatric treatment. Psychotherapy such as CBT, brief psychodynamic therapy, and behavioral therapy suggested as the main treatment modality for FND. It centers on addressing coping mechanisms and underlying psychological factors which help patients recognize and manage any emotional distress or trauma related to their FND and improving coping skills. Only after the patient's symptoms have been confirmed and they accept FND as a real condition can treatment begin. To effectively convey the nature of FND, healthcare professionals can utilize simple analogies, such as comparing the mind and body to software and hardware. This helps patients grasp the functional aspect of FND, distinguishing it from structural neurological disorders. Patient participation in the treatment plan is encouraged and trust is fostered by this validation procedure. After thoroughly assessing and eliminating out any underlying medical illnesses that could resemble FND symptoms, a conclusive FND diagnosis needs to be made. This guarantees that the patient will receive the right care based on the accurate diagnosis.

> *''psychological therapy may be cognitive therapy is the best treatment psychiatric treatment I will send them to psychiatry'' (PN3)*

> *''I think psychotherapy, allowing them to express whatever the underlying suppressed emotion or trauma might be that is causing them to have these symptoms. It might be better'' (PN6)*

The placebo effect is a complex phenomenon that is not fully understood. However, it is believed to be related to the patient's expectations and beliefs about the treatment among some healthcare providers. Some healthcare providers may initially employ a trial of placebo medication to assess whether it has any positive impact on the patient's symptoms. One participant have reported differently emphasizing that Medication is often used cautiously in the treatment of functional neurological disorders (FND), mainly for its placebo effect or to treat co-occurring anxiety symptoms. Because of its psychological effects, placebo medicine may help certain patients, but it is not regarded as a main treatment for FND. Healthcare professionals usually let patients know that there might be a psychological component to their symptoms, but in-depth conversations regarding the psychological aspects of FND are frequently postponed until after a more solid patient-provider relationship has been formed.

> *''mainly as either placebo effect sometimes or most of the patient has some anxiety something*

associated then we give that medication sometimes after we try with some placebo on appointment, we try to tell them this may be psychological problem but at glance we are not going to discuss with them'' (PN2).

4.2.6 Confident to diagnose and treat FND

The data indicated that a thorough physical examination is required in the diagnosis of functional neurological disorders (FND). This is due to the fact that FND symptoms can be mistaken for those of structural neurological disorders such as stroke or multiple sclerosis. The clinician can rule out these other conditions by carefully examining the patient and observing their symptoms, increasing their confidence in a diagnosis of FND.

''It needs extensive physical examination as well as work-out. I still can be confident, so, making the accurate diagnosis makes me feel good, to get the appropriate management'' (PN4).

''Diagnosis, I think I am confident. I have patients, I see them, and I try to rule out and work with the neurology people in order to rule out the underlying conditions and reach to the functional neurologic symptom disorder diagnosis'' (PP7).

Lack of confidence in diagnosing medical conditions, particularly in neurology was reported to be because of the potential consequences of a wrong diagnosis, they express a strong aversion to making diagnoses. They discuss a specific case that they read or heard about in which a patient was initially misdiagnosed with a psychiatric illness but was later found to have autoimmune encephalitis. This case illustrates the risk of misdiagnosis and the potential harm it can cause. The practice of consulting with senior colleagues is mentioned by the speaker. This ensures that other potential causes are considered and organic or treatable conditions are ruled out before attributing symptoms solely to functional disorders. The speaker's cautious approach reflects their awareness of the potentially disastrous consequences of incorrect diagnoses.

4.3. Attitudes towards Functional neurological symptom disorder

This theme describes the attitude participants have towards diagnosing and treating functional neurological symptom disorder in general and specifically towards patients with FND, responsible person to make diagnosis and treatment.

4.3.1 Perception towards patients with functional neurological symptom disorder

FND has historically been stigmatized and misunderstood, frequently written off as "psychological" or "imaginary." Participants in this study points to a direction in which FND is acknowledged as a real medical disorder and the effects it has on patients in the real world are recognized. The focus on empathy suggests a willingness to actively comprehend and assist the emotional needs of FND sufferers, rather than merely treating them as equals. This is essential for giving FND patients with holistic care that takes into account both their physical and mental needs. This claim suggests that opinions about FND may be changing.

> *‘‘So as much as we treat DM and hypertension, this should be treated too. So they should be in adequately counseled and we have to make sure that they are properly treated’’ (PN5)*

The analysis reveals that it's possible that some healthcare providers don't fully understand the nature of mental illness or the particular conditions the patients suffer from. This can cause people to mistake their actions for intentionality rather than symptoms. This might be the result of social stigma, lack of exposure to correct information, fostering skepticism toward the patients' experiences, or having predetermined conceptions about mental illness or putting one's own problems or fears onto them. Possibly having trouble admitting their own weaknesses or anxieties, which makes it simpler to think that the patients are "faking" It may be emotionally taxing for some to acknowledge the patients' suffering as real, which may lead them to minimize the gravity or sincerity of their experiences.one participant have reported difficulty accepting patients symptoms as genuine as follows:-

> ‘‘Sometimes I find myself having a hard time accepting that they're not making up these illnesses that they’re unconsciously producing them’’ PP8.

Difficulty to distinguish FND seizures from co-occurring epileptic seizures was mentioned to be a concerning issue. One participant brought up a worrying issue: some healthcare professionals believe that patients with Functional Neurological Symptom Disorder (FND), specifically psychogenic non-epileptic seizures (PNES), are "faking it." While some patients may experience both, suggests a tendency to prioritize epilepsy as the "real" cause, overlooking the possibility of FND co-occurrence. This misperception might cause needless and potentially hazardous examinations, postponing adequate treatment for the underlying FND, and have catastrophic repercussions for individuals. This could make patients feel ignored and unheard, which can be quite upsetting for those who are already having a hard time managing their symptoms. It may make depressive, anxious, and lonely feelings worse.

> ‘‘So, I think 10% of the patients with psychogenic epilepsy also have some type of epilepsy. So, I

think that's one misconception. We always think that patients with psychogenic non epilepsy are faking it'' (PN5).

4.3.2. Perceived responsible person to make a diagnosis of FND

The information from this study implies that it is crucial for neurologists, psychologists, and psychiatrists to collaborate across disciplines in order to combine their specialized knowledge in order to provide a thorough diagnosis of FND. Clarity and patient confidence can be increased by outlining the precise duties and responsibilities of each professional in the FND diagnostic procedure. Furthermore, filling in any knowledge gaps regarding FND diagnosis through focused training might improve function within the diagnostic team. Participants in this study believe that both psychiatrist and neurologists can make a diagnosis, but psychiatrists have the last word. Because of their apparent knowledge gaps, neurologists are viewed as offering preliminary diagnosis rather than definitive ones according to one participant from psychiatry.

''Of course. Eventually it has to be a psychiatrist. (PN6)

''The diagnosis can be made by psychiatrists and also psychologists can also make the diagnosis'' (PP8).

''Anyone trained in clinical psychology or psychiatry can make the diagnosis'' (PP9).

''I think the psychiatrist is the one who makes the final diagnosis, but the neurologist can make provisional kind of diagnosis. Not the neurologists, they cannot establish the diagnosis because I don't think they know the full criteria. I'm not sure if they do.'' (PP10).

4.3.3 Perceived responsible person to treat patients with FND

Essentially, the participants support the idea that FND should be treated primarily by licensed psychiatrists. They think psychiatrists have the right training, are accountable for patients' health, and are skilled in the vital psychotherapy technique. Although they acknowledge that neurologists may have a supportive role, they stress that psychiatrists are the best candidates for managing FND because of their specific training.

''I think it should be provided by the psychiatrist, for the treatment, I think psychiatrists are better in the treatment of conversion disorders than neurologists'' (PN4).

''From the neurology side I think neurologist or neurology residents can manage it and from psychiatry side I think anyone who is trained in psychotherapy can treat the patient since psychotherapy is the best treatment of choice. I think anyone who is trained in doing the psychotherapy in psychiatry, which either residents, a psychiatry senior or clinical psychologist

can treat'' (PP10).

Findings on this study indicates that conventional medical approaches frequently treat neurological and psychiatric conditions independently, compartmentalizing the body and mind. Because FND is diverse and involves a complex interplay of biological, psychological, and social elements (referred to as "biopsychosocial"), isolated therapy approaches may not be sufficient to address its many facets. To effectively address the requirements of patients with FND, a holistic approach that takes into account all biopsychosocial aspects is therefore required. Participants in the study are emphasizing the importance of a collaborative approach involving both neurologists, psychologists, psychiatrists and social workers when treating functional neurological symptom disorder (FND).

''So, we have to engage the social workers, the psychologists, the psychiatrists, as well as other medical professionals to rule out any medical causes that are resulting on these symptoms''(PP8).
''the treatment needs collaboration between disciplines because it's the difficult one so as much as possible'' (PN3).

4.4 Diagnosis and treatment practices of HCPs

This theme describes neurologists and psychiatrists experience in diagnosing and treating functional neurological symptom disorder, usual diagnostic procedures and experiences encountered with patients and any challenges faced in their practices.

4.4.1 Diagnostic procedures used by HCPs

In order to diagnose functional Neurological symptom disorders (FNDs), a comprehensive physical examination is crucial. A class of disorders known as FNDs are defined by atypical movements that are not brought on by an anomaly in the structure of the nervous system. A thorough clinical evaluation that includes a thorough history and physical examination is the basis for the diagnosis of FND.

''besides history, the most important thing that I consider is physical examination, especially in the functional tremors and the functional dystonia.''(PN5)

4.4.2, Experiences encountered from patients with FND

It was stated among the interviewees that it can be difficult to work with FNSD patients because of their propensity to downplay symptoms, believe that the diagnosis is "all in their head," and place more faith in testing than in the doctor. It may be challenging to properly manage their illness as a result of poor treatment adherence brought on by this lack of acceptance and trust. Because the symptoms of FNSD

are not organic, individuals frequently present with difficult problems for medical practitioners. Healthcare providers must take a patient-centered approach to treating FNSD, treating not just the physical symptoms but also the psychological and emotional components of the disorder. Encouraging patients to comprehend and accept their diagnosis and participate in treatment can be greatly aided by developing trust, offering psychoeducation, and providing support.

> *''They will deny their symptoms. After we tell them, probably it's functional, then they will say, am fine now. So, it's very difficult part of my job explaining to my patients from my experience's patients believe the investigation more than us, I think, in my experience, more than two third of my patients, I guess, more than half, will not come back to check-up with me'' (PN1).*
> *''Acceptance from the patients so certainly difficult. Telling someone that it is in their mind and actually diagnosing'' (PN6).*

4.3.3. Resources or tools used to make a diagnosis and treatments

Interviewees stress the significance of a comprehensive clinical evaluation, which includes a physical examination and the application of specialized instruments such visual field charts and Hoover's maneuver. Functional disorder diagnosis cannot be made with a single, accurate tool; instead, physicians must use their clinical judgment.

One of the participants stated that:-

> *'' I use the way approach neurology patients physical examination, history and investigation modalities are main things that I use ''(PN5)*

4.3.4 Challenges in making diagnosis and treating patients with FND

Diagnostic Uncertainty: It is difficult to diagnose and explain FND to patients because there isn't a clear-cut physical explanation for it. FND is linked to stigmas that may cause patients to doubt themselves, write it off, or even feel ashamed that learning they have FND in the absence of a definite physical explanation can be upsetting.

> *''Even if it's bad news, at times, the diagnosis might be bad. It could be brain tumor, but we say, there is a tumor in the frontal lobe, in the bladder, but in this FND we don't know where it is. So, it's challenging for us to explain to our patients.*
> *With all its stigmas and everything. And that is most of the work. So, I don't think patients will like being told that there is no organic cause'' (PP8)*

Misdiagnosis: participants have emphasized how difficult it can be to diagnose seizures correctly,

especially when dealing with status epilepticus (SE), which is defined as a prolonged seizure or a string of closely spaced seizures that do not fully recover consciousness in between. According to the statement, about one-third of patients diagnosed with SE may actually have functional seizures, which are non-epileptic seizures brought on by psychological factors rather than aberrant electrical activity in the brain. It also suggests that even among patients who have true seizures, 40% may have been misdiagnosed. The declaration also highlights the fact that general practitioners and psychiatrists are not exempt from misdiagnosis; they can also happen among experts such as neurologists and psychiatrists. Seizures have a high misdiagnosis rate, which raises concerns because it may result in improper management and therapy. When antiepileptic medications (AEDs) are mistakenly prescribed for functional seizures instead of epileptic seizures, for example, side effects may occur and the medication may not be effective against functional seizures. On the other hand, misdiagnosing a functional seizure as an epileptic seizure might cause a delay in receiving the proper AED medication, which may result in more frequent and severe seizures.

> *''even in seizure from true seizure around 40% of patients may be misdiagnosed with even from those who have been diagnosed from status epilepticus around 3rd of the patients actually have functional seizure not status epilepticus so it's common to let alone the other general practitioners' other neurologists and psychiatrists may also misdiagnose .so it's very common''(PP7)*

Lack of knowledge: This interview finding emphasizes the significance of comprehensive neurology knowledge for proper diagnosis and patient care. FND can look like other neurological illnesses, making it difficult to tell them apart. Understanding the normal presentations of neurological diseases, on the other hand, enables clinicians to spot deviations that may indicate FND.

> *''the main challenge is lack of knowledge is one of the gap because we have to know the real manifestations of the neurologic problems and if we know that we can think functional neurologic disorder when they deviate from that'' (PN3)*

Building Rapport: interviewees in this study have implied that it is difficult to engage patients with functional neurological symptom disorder (FNSD) in therapy because it is difficult to establish a strong connection with them and is quite tough to persuade them or create this rapport. The difficulty, according to neurology and psychiatry, derives from the fact that these people have a true problem and struggle to understand what they say. As a result, they are first apprehensive and may even refuse to attend future visits. Building rapport is critical to the success of therapy. When working with FNSD

patients, healthcare personnel must be compassionate, understanding, and patient. Patient education requires effective communication. Functional symptoms must be explained in a clear, brief, and intelligible manner by healthcare providers. Patient education can help to minimize the severity of symptoms and enhance overall functioning. Understanding the nature of their symptoms allows patients to play a more active role in their treatment. Long-term success requires ongoing encouragement and support. Patients should get constant support and encouragement from healthcare practitioners throughout their treatment journey.

‘‘It’s challenging for us to explain to our patients.

With all its stigmas and everything. And that is most of the work. So, I don’t think patients will like being told that there is no organic cause’’ (PP8)

‘’ So, the difficulty I think is to build enough rapports so that they would be interested with therapy ,So convincing them or creating this rapport is very difficult’’(PP7)

CHAPTER FIVE:

5. DISCUSSION

The qualitative study was conducted at Black Lion Specialized Hospital Addis Ababa, Ethiopia, with twelve (n=12) participants from neurology and psychiatry residents: To explore healthcare Practitioner's self-reported Knowledge, Attitude and Practice in Diagnosing and Treating Functional Neurologic Disorder. This discussion section will try to understand the study findings with previously donesimilar studies.

Regarding terminologies three most chosen terminology for describing functional seizures are 'FNEA,' 'dissociative seizures,' and 'functional seizures.' The least offending word was 'nonepileptic attack disorder,' with 'FNEA' and 'functional seizures' tied for second place (Loewenberger et al., 2020). Participants in the interview were describing functional neurological symptom disorder, functional seizure and conversion were among the preferred terminologies.

To develop a diagnosis, a neurologist, psychiatrist, or psychologist may search for specific patterns of symptoms or indicators. Physical, neurologic, and psychiatric evaluations, as well as imaging scans, are used to rule out other conditions and investigate symptoms like tremors, weakness, walking, and eyesight(Stone et al., 2016),similarly this research finding highlights, neurologists, psychiatrists, and psychologists rely on a combination of clinical assessments, imaging scans, and laboratory tests to systematically eliminate potential diagnoses. This approach involves carefully considering the patient's medical history, symptoms, and presentation, and then systematically excluding other conditions that could mimic the observed signs and symptoms.

A definitive diagnosis of FND can often be made through a neurological examination, rather than as an exclusionary diagnosis. Explaining the diagnosis to patients in detail can improve the effectiveness of diagnostic delivery and empower patients to manage their condition. (Espay et al., 2018). Participants in the study explained that diagnosis by exclusion is a must before explaining the diagnosis in detail in order not to make misdiagnoses and avoid labeling.

A study done in Nigeria on pediatrician's knowledge of conversion disorder in children reported that pediatricians do not have satisfying knowledge of CD in children which will result in stigmatization of the patient and caretakers and results in unnecessary costs and invasive investigations. In this study, it shows that there isn't a significant difference as a result of years of experience, Gender and presence

psychiatric care from those with good knowledge and without.(Ndukuba et al., 2015).on the contrary to this study in the interview in this findings, year one neurology residents have reported that there is uncertainty in making diagnosis considering the years of experiences they have which might indicate that there is significant difference as a result of years of experience.

A prospective observational clinical outcomes study done shows that HCP may also believe that they don't have the skills to treat CD and perceive that the patient is in the wrong place and better be treated by mental health professionals (Kirschner et al., 2012).similarly in our study findings, participants from neurology also have confirmed that they don't have the skills and to treat patients with functional neurological symptom disorder and suggested to be treated by psychiatrists whereas psychiatry residents also have suggested the same.

Retrospective analysis done at a tertiary hospital in South Africa (shows that there is a need to practice evidence based and cost-effective approach to minimize unnecessary examinations and uncertainty to differentiate FND if there are coexisting organic conditions (Naidoo & Bhigjee, 2021). participants in this qualitative study also mentioned that there a challenge if there is a comorbidity leading to misdiagnosis which might result in costly investigation for patients.

Cross-sectional survey done in Egypt with 152 physicians from various specialties, including psychiatry, neurology, and internal medicine shows Physicians' knowledge of FNSD was low, with only 44% of participants reporting a good understanding of the condition. Most physicians (86.8%) were concerned about missing an organic disorder when diagnosing FNSD and Psychiatrists were the most confident in diagnosing FNSD and the most comfortable discussing it with patients. The majority of physicians (72.2%) reported receiving no formal training in FNSD during their medical education (Alamrawy et al., 2023), Similarly in this qualitative study done neurologists and psychiatrists reported to have a good understanding of the disorder describing the causes, features, and possible treatments and neurologists reported they are confident if organic cases are being ruled out to make a diagnosis and not confident to provide treatments, relatively psychiatrists were the more confident in making diagnosis and treatments. However this study is different in methodology and the number of participants and includes only neurology and psychiatry residents

CHAPTER SIX:

6. CONCLUSION, LIMITATION AND RECOMMENDATION

5.1 Conclusion

This study found Functional neurological disorder (FND) is a complex condition that can manifest in a variety of neurological symptoms, such as weakness, tremor, and seizures. Participants have emphasized that FND is not caused by a structural abnormality in the brain, but rather by a problem with the way the brain functions. the participants described a detailed medical history has to be carried out which was found to be helpful in ruling out other conditions and increasing confidence in a diagnosis of FND which is important as early diagnosis can lead to better outcomes. Participant from both department have mentioned that they struggle with the ambiguity of FND and may unintentionally convey disbelief or dismiss patients' concerns. regarding responsible person for treatments neurologist have suggested to rule out organic causes and refer patients to psychiatrists and all participants have agreed for the treatment to be delivered by trained mental health professionals. Participants also tells of that there is a lack of knowledge, misdiagnosis and developing rapport with patients as a challenge in making diagnosis and treatment of FND.

5.2 Limitations

The study included participants who are in different age group, and gender. The study focused on neurologists and psychiatrists, and the focus of the organization being only in one hospital which could be a limitation to conclude this study to briefly understand other institutions' HCPs experiences which may limit the generalizability of the findings to other healthcare providers.

5. 3 Recommendations

Increasing healthcare providers' awareness and understanding of FND is key to close the knowledge gaps surrounding FND, educational programs and new diagnostic tools are required. This will assist Healthcare providers in correctly identifying FND and distinguishing it from other neurological diseases.

Stressing the significance of a complete medical history and assessment is essential for ruling out other possible causes of neurological symptoms and increasing confidence in the FND diagnosis. This complete

evaluation aids in distinguishing FND from structural brain lesions, mental illnesses, and malingering. Adopting a multidisciplinary strategy that includes neurologists, psychiatrists, and mental health professionals is also helpful to have an early detection and management of FND.

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ANNEX

Informed Consent

My name is Liya Jemal. I am a second year clinical psychology trainee at Addis Ababa University. I am conducting a research titled ‘‘Exploring knowledge attitude and practices of primary health care practitioners in Diagnosing and treating functional neurological disorder”.

You are invited to participate in a research study about the knowledge, attitudes, and practices of healthcare practitioners in diagnosing and treating functional neurological disorders (FNDs).

Purpose of the Study: The purpose of this study is to learn more about how healthcare practitioners are currently diagnosing and treating FNDs. I will ask you questions about your subjective knowledge of FNDs, your attitudes toward people with FNDs, and your practices for diagnosing and treating FNDs.

Procedures: If you agree to participate, you will be interviewed with given questions. The interview questions will ask you about your knowledge of FNDs, your attitudes towards people with FNDs, and your practices for diagnosing and treating FNDs. The questionnaire will take approximately 30 minutes to complete.

Benefits of Participation: There are no direct benefits to participating in this study. However, your participation may help us to improve the way that FNDs are diagnosed and treated.

Risks of Participation: There are no known risks associated with participating in this study. However, some people may feel uncomfortable answering questions about their knowledge, attitudes, and practices regarding how they diagnose treat patients with FNDs.

Confidentiality: All information collected in this study will be kept confidential. Your name will not be used in any reports or publications. Only the principal investigator and the research team will have access to your data.

Right to Withdraw: You have the right to withdraw from this study at any time without penalty. If you decide to withdraw, you can simply stop participating and no further data will be collected from you.

Voluntary Participation: Your participation in this study is voluntary. You are free to choose whether or not to participate. If you choose to participate, you can withdraw at any time without penalty.

If you agree to participate, you will be interviewed with brief questions. The interview will ask about your knowledge of FNDS, your attitudes toward people with FNDS, and your practice in diagnosing and treating FNDS. The Questionnaire will approximately take 30 to 45 minutes to complete.

Before participating in this study, the necessary information concerning the study that is the purpose of the research, procedures, risk and/or discomforts with their solutions, benefits, privacy and confidentiality, and freedom to withdraw is provided for me in a well-organized way.

Name_____Signature_____

Witness_____signature_____

Principal Investigator: Liya Jemal

Advisors: Getahun Tibebu

Dr. Bineyam Worku

Phone – (+251)900727477

Email- Liyajemal@gmail.com

Address of Department of Psychiatry clinical psychology program, Addis Ababa University:

Phone- (+251)118962052

If you are willing to participate in the study, you will be given a copy of the information sheet and you will be asked to sign an informed consent form.

Annex I- Informed Consent Form

I have read and received information and understood the information provided about the research, procedure, risks, benefits and that participating in the research will not affect my work at Black lion hospital. I am informed that an audio will be recorded during the interview and that the researcher will

ensure my confidentiality. I consent to participate voluntarily in the research on assessment of HCP's Knowledge Attitude and practices in diagnosing and treating patients with FND at Black lion specialized hospital.

Participant's Signature _____ Date _____

Annex II- Demographic information for neurologists and general practitioners

Date - _____

Identification number- _____

Thank you for agreeing to participate in the study. I will precede and ask you questions about yourself.

Age- _____

Sex - _____

Residence- _____

Religion- _____

Educational status- _____

Occupation- _____

Years of experience_____

Department _____

Exploring Knowledge of healthcare practitioners in diagnosing and treating functional neurological disorder

1. What do you know about functional neurological disorder?
2. What terms do you prefer to use to diagnose functional neurological symptom disorder
3. What are the key features of functional neurological symptoms disorder?
4. What do you think the causes for functional neurological symptom disorder?
5. What is the best (possible) treatment for FND?
6. How confident are you to diagnose and treat FND?
7. What are the common misdiagnoses of FND?
8. FND has several names such as conversion, hysteria PNES...Etc which term do you prefer?
9. Why do you prefer the term?

Exploring the attitudes healthcare practitioners in diagnosing and treating patients with functional neurological disorder

6 How do you feel about treating patients with functional neurological disorder?

7 What are your perceptions towards patients with FND?

8 Whose responsibility is it to make a diagnosis of FND?

Who has to treat patients with FND?

Exploring healthcare practitioners practices in diagnosing and treating functional neurological disorder

1. What is difficult or a challenge to make diagnosis and treat patients with FND?
2. How often do you encounter patients with FND?
3. What is your usual diagnostic procedure for FND?
4. What is your usual management strategy for FND?
5. How do you involve patients in the diagnostic and treatment of FND?
6. What resources or tools have you got to make a diagnosis and treatments?

Inerview4

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PN4
Age:29
Sex: male
Residence: R2
Religion: orthodox Christian
Occupation: student
Years of experience-9 months as GP

Interviewer: So the first question is about exploring knowledge of healthcare practitioners in their thinking treating functional neurological symptoms disorder. So the first question would be what do you know about functional neurological symptoms disorder?

Interviewee: They are common illness among both psychiatric and neurologic diseases, but we need to be very careful in differentiating between the two. So we can express it as a disorder of hardware. Hardware is for neurologic diagnosis. For the conversion, there is no structural damage, but the main problem is in the function of the neurologic system.

Interviewer: So, as we know that FNSD or functional neurologic symptom disorder has several names, such as conversion, hysteria, psychogenic non-epileptic seizure, and so many terms. So, what term do you prefer to use to diagnose functional neurdogic symptom disorder?

Interviewee: Okay, so it varies according to the patient's presentation. So, psychogenic and epileptic seizure is when the patient presents with seizure, but it may not be specific to epilepsy, so it should be differentiated because management is greatly different. So the wordPNES or psychogenic non-epileptic seizure should apply to patients present with seizure, but when they present with other symptoms like paralysis, weakness, so I prefer the term conversion, but we can't give the general term for the answer. I is different.

Interviewer: Why do you prefer conversion?

Interviewee: Conversion is a general term, but we should not say conversion for all patients present with functional disorder. They should be differentiated. I told you, please, according to their presentations.

Interviewer: So, what are the key features of functional neurological symptoms disorder?

Interviewee: So, they can present similarly with neurological disorders. Let's say, a patient may present with quadriplegia. So neurologists will think of some structural causes. Imaging will bedone with spinal

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in
Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PN3
Age:31
Sex: female
Residence: R2
Religion: orthodox Christian
Occupation: student
Years of experience-5 years as GP

Interviewer: So, I'm going to ask you a question. The question is about exploring knowledge of healthcare practitioners including functional neurological symptom disorder. So, the first question is, what do you know about functional neurological symptom disorder?

Interviewee: Okay, functional neurological symptom disorder can be conversional type disorders. They can be patient come with functional tremors, dystonia, weakness, so especially in an emergency. We have a couple of patients with functional weakness. So I can see that it might not be that common in other setups, but considering this is a tertiary setup, we might see patients with dysfunctional disorders.
Interviewer: So is it very common in these hospitals?

Interviewee: It's not common as the other neurological disorders, but considering that this is a tertiary setup, we can see more patients with this kind of disorders other than in other setups like in other primary hospitals or other settings. But not compared to the neurological disorders, not common, but even me, I have seen a couple of patients with functional weaknesses. Compared to other setups, it's... I might, yes.

Interviewer: So, functional neurological symptom disorder has several names such as conversion disorder, Hysteria, psychogenic nonepileptic seizures, and other different things. So, which term or what term do you prefer to diagnose?

Interviewee: Actually, it depends on the type of presentation they come with. So, if what they mean is more of abnormal body movements, and if there's no organic cause for that epilepsy, we might consider it as a psychogenic epilepsy. But usually I prefer to refer to that as functional tremor, functional weakness, or functional dystonia. It's rather than conversion disorder. It's a bit vague for me as a neurologist, but in psychiatry I'm not sure.

Interviewer; why do you prefer functional neurological symptom disorder over the other terms?

Interviewee; It helps me to describe their diagnosis better than just a conversion disorder. It's big, a bit big, but if I can put it as a functional tremor or as a functional dystonia, it will give a picture of more what type of functional disorder it is rather than just a conversion disorder.

Interviewer: So, what are the key features of afunctional neurological symptom disorder?

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PN3
Age:30
Sex: male
Residence: R2
Religion: orthodox Christian
Occupation: student
Years of experience-3 years

Speaker4 (00:02):
The first question is exploring the knowledge of healthcare practitioners in diagnosing and treating functional neuropsychiatry disorder. So the first question is what do you know about functional neurological symptom disorder?

Speaker2 (00:20):
It's a very wide topic. Well, functional means there is an underlying pathology leading to the cause. So usually the psychiatric or psychological symptoms manifest physically due to the patient might be aware or unaware of the symptoms. So from my reading what I do is it is a diagnosis by exclusion.

Speaker4 (00:51):
So is there any term do you prefer to use to diagnose functional neurological symptom disorder?

Speaker2 (01:01):
I guess it depends on the disease. There are more psychogenic symptoms, more psychogenic features, psychogenic illnesses. But I think that functional is related because it hasn't been found yet the reason for the cause for the so-called functional neuropsychiatry disorder. So I think there is always going to be an underlying pathology. But as long as there is no clear pathology, psychogenic illnesses or functional neuropsychiatry can be used both of them.

Speaker4 (01:40):
The reason why I am asking is sometimes it has different names, right? hysteria, somatization, conversion.

Speaker2 (01:49):
Somatization is fine. Conversion, somatization is when the symptoms like headache, abdominal pain, due to the psychiatric or the psyche of the patient. Conversion, I think it is similar to that but might manifest in different ways like catatonia. But I don't like the term hysteria.

Speaker4 (02:14):
So which term do you prefer to use?

Speaker2 (02:18):
The psychogenic? Psychogenic illness or conversion.

Speaker4 (02:23):
Is there any reason why you prefer this name?

Speaker2 (02:29):
No reason, just stigma. When you say someone is hysteric, it's a bad label.

Speaker4 (02:39):
So what are the key features of functional neurological symptom disorder?

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in
Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PP7
Age:32
Sex: male
Residence: R1 (psychiatry resident)
Religion: Muslim
Occupation: student
Years of experience-2years

Interviewer: the first question is what do you know about functional neurologic symptom disorder?

Interviewee: Okay, thank you. So functional neurologic symptom disorder is a disorder that patients present with certain motor disorders and trauma, stressful life conditions previously, now presenting with some physical kind of symptoms. So it is a way that patients present with physical symptoms while they are having underlying psychological problems.

Interviewer: So what are the key features of the disorder?

Interviewee: The key features of this disorder are, patients present with motor symptoms, for example, patients might present with epilepsy, seizure, loss of consciousness, hemiparesis, hemiplegia, monoplegia, visual loss, so there will exist certain physical symptoms, certain motor and also neurologic kind of symptoms and those are the features that patients present with.

Interviewer: So what do you think the cause would be as you mentioned, there might be underlying psychological problems.

Interviewee:I find patients having trauma, for example, so patients having to go through some kind of trauma, can be psychological, I mean sexual assault can be there. I had patients with Rhet now, presently with these symptoms, some kind of psychological stressors, disagreements in family, so divorce, major life changes, so people moving from somewhere to another, and difficulties adapting to the new

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PP8
Age:30
Sex: Female
Residence: R1(psychiatry resident)
Religion: orthodox Christian
Occupation: student
Years of experience- 2years
Interviewer: the first question is exploring a health care practitioners knowledge in diagnosing and treating patients with functional neurological disorder. So, what do you know about functional neurological disorder?
interviewee: A functional neurological disorder is a disorder that resembles medical disorders, but it's not a physical disorder. It may be voluntary, sensory, or motor function deficits. In addition to that, those deficits are not better explained by medical reasons, and there is going to be incompatibility between their presentation and between our physical findings. So, it causes physical or occupational impairments, and it may present with weakness, paralysis, with any speech impairments, with any swallowing problems. So, basically, it appears as if it is a physical problem, but it's a psychological problem that resembles a physical problem.
Interviewer: So, I think in the answer to the first question, you've also answered the causes. So, can you elaborate more on the causes, when you say psychological causes?
Interviewee: It's not organic cause. So, there's going to be a psychological stressor. Whenever there's a certain psychological stressor that occurs in the patient's life, these symptoms appear, and when those psychological stressors resolve, these symptoms also resolve. But that doesn't mean that the patient is going to have these symptoms without any psychological stressors, any obvious psychological stressors, but they may be a somatic kind of presentation or a somatic kind of expression of their feelings.
Interviewer: So, functional neurological symptom disorder has several names, such as conversion disorder, a psychogenic seizure, previously was also labeled as hysteria. So, which term do you prefer to use to make the diagnosis? So,
Interviewee: I think, currently the DSM-5 uses the functional neurological symptom disorder So, that's the one I use usually, because it's said that the reason that it was changed is because it tends to stigmatize these patients by calling it hysteria. It makes it seem like these patients are over-exaggerating

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in
Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PP9
Age:33
Sex: male
Residence: R3
Religion: Christian protestant
Occupation: student
Years of experience- +3years

Interviewer: So what do you know about functional neurological symptoms of disorder?

Interviewee: functional neurological symptoms disorder previously known us conversion disorder and mostly neurological symptoms which has psychological causes for neurological symptoms, so, the underlying causes are psychological, manifesting with different motor and other neurological symptoms. It could be either mutism, weakness, blindness, and usually there is psychological stress associated with it. And it usually differs from the typical neurological manifestation of the disease. Usually, it won't have any organic cause, no clear findings in investigations. But usually, there is a stressor, a recent stressor that results in these neurological manifestations.

Interviewer: So, as you mentioned, you were saying the presentation, what are the other features of the disorder?

Interviewee: there could be mutism, blindness, deafness any dysarthria, weakness, abnormal body movements seizure like symptoms, syncopal attack, fainting.

Interviewer; And you also said recent stressors, what could be the causes?

Interviewee: it could be a psychological stressor preceding the neurological symptoms. It could be any new difficulty in the person's life. It could either be a death, separation, loss, yeah, this kind of symptoms, any change in previous routines, new stressors could cause this kind of symptoms. Also, usually they could be modeling other patients with neurological manifestation. For example, a person

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in
Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PP10
Age:32
Sex: Female
Residence: R3
Religion: Christian protestant
Occupation: student
Years of experience-+3years

Interviewer: Okay, the first question is about the knowledge of healthcare practitioners in diagnosing and treating functional neurological symptoms disorder. What do you know about functional neurological symptoms disorder?

Interviewee: I know it's one of the psychiatric disorders which is classified under somatic symptom related disorders. It's a diagnostic, patients have this neurological symptoms, either sensory motor or other kind of neurological symptoms that cannot be explained by other neurological or medical diseases. So we have to rule out other neurological or medical causes before diagnosing functional neurological symptom disorder. And it's mostly common in female, and the patients usually present to a neurology side initially for evaluation and treatment and they are after being assessed thereafter investigations are done and they find no actual neurological cause for their symptoms they link them to our side so that they can be evaluated.

Interviewer: Why do you think it's common in women?

Interviewee: I think it's because of the associated psychosocial factors that are more common in women because like we know, functional nuerological symptom disorder is mostly associated with trauma and we know that more traumatic events happen to women when compared to men, especially like sexual trauma. And so I think it's related with that. So the psychological stressors are more common in women.

Interviewer: What are the key features, functional neurological symptoms disorder? You mentioned some of the symptoms. So what are the key features of typical symptoms?

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PP11
Age:32
Sex: Female
Residence: R3
Religion: orthodox Christian
Occupation: student
Years of experience-+3years
Interviewer: The first question is about exploring the knowledge of health care practitioners in diagnosing and treating functional neurologic symptom disorder. So the first question is what do you know functional neurologic symptom disorder?
Interviewee: The functional neurologic disorder is one of the most common disorders currently under somatic symptom category. And it can be related for various causes as etiology, biological, psychological or social factors that can contribute to the presentation. It has a neurologic presentation without actually an underlying organic cause. It could occur as an isolated psychiatric illness or it could occur as a co-morbid to neurologic or other medical condition as well. So they could present with such neurologic symptoms like either paralysis, blindness or mutism and the like without the presentation being a particular kind of neurologic symptoms.
Interviewer: what are the key features of functional neurologic symptoms?
Interviewee: So, it could be mutism, aphonia, tremor, any kind of motor presentation is possible. And also blindness.
Interviewer: So can you elaborate on the causes?
Interviewee So one of the things could be the patients could already have a predisposition for a neurological illness and could have a neurologic illness and it could predispose them for having a functional neurologic symptom.The other thing is psychologically it could have multiple causes. It could have a particular meaning to the patient and could be in the form of identification. It could also be a way of expressing an explicit emotion or it could also be associated with an unconscious kind of psychological gain, maybe the secret and the like, so it could have multiple causes. And also maybe societal factors or environmental factors could possibly contribute in perpetuating the persistence of the symptom.
Interviewer:So as you know, there are different terms used for functional neurological symptoms. What terms do you prefer to use to make your diagnosis and also for clinical use?

Interview -1

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in
Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PN1
Age:32
Sex: male
Residence: R3
Religion: orthodox Christian
Occupation: student
Years of experience-+4 years
Interviewer: What do you know about functional neurological symptoms disorder? What do you know about functional neurological symptoms disorder?
Interviewee: Terminology wise, it's a difficult thing to define. What we know is neurological symptoms. We usually define it as neurologic symptoms or neurologic signs that are difficult to explain Attributing that functional neurological symptoms disorder, we have to exclude other medically explained organic or neurologic causes.
We have to explain what type of neurological causes, If they don't make sound neurological findings on neural axis then it's only a problems of functional disorders.
Interviewer: What term do you prefer to use to diagnose functional neurological symptoms disorder?
Interviewee: Currently, we use the term functional neurological symptoms disorder. Previously, the term somatization, conversion disorders was used currently, it's out. So, we use the term functional neurological symptoms disorder. Unless, in the case of epilepsy, we might use the term psychogenic seizures. In the case of epilepsy other than that the rest of the functional disorder we use functional neurologic symptom disorders, in seizures at times psychogenic seizures might be used.
Interviewer: so, you use psychogenic seizures for epileptic presentations?
Interviewee: Yes, at times the term functional seizures might be used, but commonly, we use psychogenic seizures. The rest, for example, for back pain or tremors, weakness, we use functional neurologic symptom disorder.
Interviewer: What are the key features of functional neurological symptoms disorder?
Interviewee: Usually, what we see is that the patients are usually dissatisfied with their care. So, there is doctor shopping, usually, the patients, this might be their fifth or six visits of the patients wandering around and manifestations are usually atypical for characteristic neurologic signs.

Interview 2

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in
Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PN2
Age:32
Sex: male
Residence: R2
Religion: muslim
Occupation: student
Years of experience- 3.5 years

Interviewer: what do you know you know about functional neurological symptom disorder?

Interviewee: we usually put functional disorder as a differential diagnosis whether that neurologic symptom is clearly defined with neuro localization, or anatomical clearly known disease then it's defined as non-functional but if it doesn't meet this criteria, we consider it as one differential diagnosis. Mainly we define it as if it is not defined with well-known neurologic neuro localization or clearly defined pathology then we define it as neurologic functional disorder

Interviewer: what term do you prefer to use to diagnose functional neurologic symptom disorder?

Interviewee: Sometimes most of the time we say functional neurologic disorder, sometimes we say conversion disorder but most of the time we say functional neurologic disorder mainly we are trained on that way.

Interviewer: so, you are trained with the term functional neurologic symptom disorder?

Interviewee; yes

Interviewer: what are the key features of functional neurologic symptom disorder?

Interviewee: we say key feature is probably as already I tell, if a patient has no clearly defined anatomical, localization for the symptom or that is sometimes they may come with a weakness or some sensory loss which are physically which are really encountered in this OPD and there is no clearly defined anatomic localization for this symptom, at that time we consider functional disorder but still we try to rule out organic cause, we are focusing on that one the we link to psychiatry.

Interviewer: what do you think the causes for functional neurologic symptom disorder?

Inerview3

Interviewer: Hello how are you? thank you for agreeing to participate in the study on Exploring healthcare Practitioner's Knowledge, Attitude and Practice in
Diagnosing and Treating Functional Neurologic Symptom Disorder. The information you provide will be kept confidential that I won't be mentioning your identity and I will precede and ask you question about yourself
Interviewee: no problem
Identification number: PN3
Age:32
Sex: male
Residence: R3
Religion: orthodox Christian
Occupation: student
Years of experience-2.5years

Interviewer; what do you know about functional neurological symptom disorder?

Interviewee: a disorder particularly actually patients are being evaluated initially in the neurology sectior ,yes patients may have the inner problem psychiatric problem but that manifests on the organ sign and symptoms particularly it may be the manifestation of neurologic gastro intestinal pain or nay other systems.so this is the manifestation the inner problem of an individual more of theemotional or psychological problem which manifests ,which express itself in neurologic manifestation like weakness, visual abnormality and so on .so that's what I know.

Interviewer: what terms do you prefer to use to diagnose functional neurological symptom disorder?

Interviewee: there are some clinical evaluations which helps us to diagnose functional neurological symptom disorder. To mention one visual abnormality particularly because in neurology there is a structure patients with this functional symptom disorder may complain sudden loss of bilateral vision even though it is rare it may be organic but mostly we should consider functional patient may have difficulty of signing their signature but a real blind patient can sign correctlywe use that .the other is ordering to touch their nose so any patient who have organic blindness can touch their nose but those patient with functional symptom disorder my have difficulty touching their nose.th other from this visua problem they complain visual field defect in patient with organic visual defect should be funnel type of visual defect but I functional neurologic symptom disorder .it may be tunnel type because in one meter distance they see the same visual field widening so that's one. Seizure there are many questions particularly to differentiate one from the other. if it is extended type of seizure,normally seizure persists no more than two minutes (real seizure most of the time).So, if the seizure extended above that we can suspect psychogenic seizure. other any psychiatric stressor social stressor should be asked because it may tell us a clue. the other a patient couldn't have a seizure by closing their eyes and that's important clue to. the other even the seizure type in functional neurological symptom disorder it is violenta bizarre type of movement but in sometimes in the frontal lobe seizure which arises in the sleep they may manifest just like violent type in vocalization and so on and that may be difficult. So, from the history this are important clues. the other is laboratory they send prolactin level but prolactin levelshould be sent in 20 minutes of seizure.so mostly we can't get patient within 20 minutes of seizure because, they come