INTRODUCTION:
The Deaf population is approximately 70 million worldwide; a large part integrates a community with a unique culture and language [1], of which mental health professionals are not always aware of. Deafness, by definition, implies a disorder of their hearing and this may affect the development of speech to a greater or lesser extent [2]. However, rather than seeing deafness as a medical issue and those who are deaf as a disabled group, most Deaf adults see themselves as a cultural and linguistic minority with their own history, customs, organizations and language, which differs in every country and every national Deaf community. Nevertheless, not every individual has or had the chance to integrate a community like those and some did not even have access to any form of communication. On the other hand, many different communication systems and languages are used by deaf people, depending on many factors, as the exposure to sign and/or spoken language, at what age exposure began, family of origin (deaf vs. hearing), educational experiences (deaf residential school vs. mainstream), and involvement in the Deaf community [3].

OBJECTIVE: The objective of this review is to list the characteristics and difficulties in the approach to mental disorders in deaf individuals.

METHODS: The results of this review come from a search of the literature on psychiatric disorders in deaf people, and it was conducted on the PubMed platform. Demographic data was consulted in the Portuguese Association of the Deaf, World Association of the Deaf and European Union of the Deaf’s websites.

RESULTS:
It’s assumed by medical literature that people who are deaf or hard of hearing present a high prevalence of mental health problems (research refers that mental health difficulties are one-and-a-half more prevalent in deaf children than in hearing children) [4] [2] [3]. However, for some authors, the epidemiology and prevalence of psychiatric disorders among Deaf patients and hearing patients may not differ substantially; perceived differences flow from lack of knowledge about Deaf culture and experiences and resultant biases by clinicians [5].

Yet, many of the risk factors for mental health difficulties are particularly common in deaf children. That fact explains the higher rate of mental health difficulties [2]. Some risk factors might be understood as secondary psychosocial factors resulting from the effects of disability on the child’s life: communication difficulties [2]; physical, sexual or emotional abuses (which are reported as more prevalent in deaf children than in hearing children) [5] [4]; educational failure; discrimination; bullying or peer rejection [2]. These risk factors can not only be identified and managed but can also be prevented by appropriate early intervention [2].

Despite a high prevalence of mental health problems in people who are deaf or hard of hearing, it seems that severity of hearing loss did not affect the rate of behavioral problems, nor has it been proven to correlate to a mental health problem. On the other hand, the absence of early auditory stimulation and delay in acquiring language seems to affect several neurocognitive processing domains, such as auditory and visual working memory. Nevertheless, nowadays a growing percentage of people who have had late but sufficient access to cochlear implant, sign-language models at school and some, with pre-lingual, severe-to-profound deafness are highly deficient in spoken, heard, written, and even signed languages [4].

Mood Disorders & Suicide:
Deaf people using visual communication language might give a misleading impression of a patient’s mood and behavior. Some may just be withdrawn, anxious or even conditioned by a poor communication potential [4]. Yet, deaf older people present higher rates of depression and insomnia than do hearing individuals – although the QoL levels do not differ according to a recent study without a sign-language-based interview [4]. Post-lingual deaf individuals reported greater degrees of mental distress than did the pre-lingual group. That mental distress was worse in individuals reporting more communication problems and lower self-esteem [4] [6]. Nevertheless, depressive disorders were equally prevalent in both deaf and hearing populations in a study from South India [6]. Researchers found a 30% lifetime prevalence of suicide attempts between Deaf college students [5]. Oddly, bipolar disorder seems to be significantly less frequent [6].

Psychosis:
Adults with hearing loss were 3 times more likely than those with full hearing to report psychotic symptoms at the end of a 3 year follow-up [4]. Hearing loss by the age of 7 was associated with about twice the frequency of self-reported psychotic symptoms at 19 years than in children without hearing loss [4]. Some authors post that psychotic disorders were not significantly more prevalent in the Deaf population. [6]

Language deficits may result from early language deprivation and they may emerge as a factor for confusion on the assessment of thought organization. Features of language disfluency (lack of references to time and subject, lack of sequential organization to stories, inappropriate or absent syntax with bizarre quality and a meaningless repetition of signs) are commonly confused for symptoms of a primary thought disorder [4] [5]. These can contribute to the over use of a psychosis non-specified diagnosis among Deaf patients. Rapid signing is also often assumed to be a psychotic symptom, rather than part of a mood disorder [5].

Concerning Hallucinations, the screening for psychotic symptoms must be open to a wide range of sensory phenomena: visual hallucinations are thought as more common than other kinds and more common in deaf people with schizophrenia than in hearing controls with schizophrenia [6]. These images may be of signing hands or moving lips and, thus, linguistic rather than visual [5]. Deaf people may have auditory hallucinations that are similar to those in psychotic hearing patients. Depending on the disability’s nature and on their age at hearing loss, they are less likely than hearing patients to be able to describe certain features of the hallucinated speech [5]. Nevertheless, research on this subject is rarely conducted with large groups, and auditory hallucinations at rates similar to those in psychotic hearing patients. Depending on the disability’s nature and on their age at hearing loss, they are less likely than hearing patients to be able to describe certain features of the hallucinated speech [5]. Nevertheless, research on this subject is rarely conducted with large groups, and some psychotherapists don’t feel comfortable including an interpreter in sessions. They fear losing direct contact with the patient, misinterpretations and transference/counter-transference between the interpreter and the patient. However, if used appropriately, certified interpreter services may actually enhance the therapeutic process [5]. Culturally competent clinicians are rated as more credible, caring, and effective. Deaf patients with access to interpreters use more preventive services and receive more psychiatric counseling than do deaf patients who rely on note-writing with physicians [4]. Unfortunately, most physicians have little or no training in the provision of culturally and linguistically appropriate care for deaf patients [3].

Other diagnosis:
Some authors suggest that the prevalence of substance disorders is lower in the deaf population [5] [6], while others affirm its prevalence is similar to the general population [7]. In a program with about 4000 individuals, it was recorded that the deaf group began substance use at an earlier age and the misuse was of greater severity than in controls [4]. A reduced frequency of personality disorders was also noted in some studies [4] [5], although some other authors admit the deaf individuals as having equivalent rates to hearing populations on this subject [6].

There’s a much higher prevalence of impulse control disorders on the deaf sample: 23% against 2% [8]. The prevalence of autism is similar or higher than in hearing individuals, although language delay, difficulties in social relationships, or ritualistic behaviors may be overlapping, differing in frequency and thus a confound factor [4].

CONCLUSIONS:
No real conclusions can be derived about the expression of psychiatric disorders on the Deaf population, as there are no large scale population-based studies on the subject. Many methodological problems hamper conclusions on the prevalence of psychiatric disorders in deaf patients.

Yet, we verified a frequent restriction and late access to a spoken or sign language and its severe impact on one’s life. Also, a linguistic and cultural barrier persists between clinicians and deaf patients that could be minimized by the presence of certified interpreters.

Nevertheless, interpreters are not always trained to deal with mental health issues and it’s feared they would interfere on doctor-patient relationship and on diagnostic interpretation. The major conclusion is that isolation and inequality of the deaf population are perpetuated by the persistence of social and educational deficiencies, including some deficits in the psychiatric training of young doctors.